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Comparative Population Policy

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Comparative Population Policy

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Dedication

To my father, who showed me the logic and insight of economics

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Miguel de Oliver at UT-San Antonio and Victor Savage at the National University of Singapore showed me the fun and usefulness of geography. They explained the spatial relationships apparent in the modern world and the history behind them. I learned more about history and politics from them than most government and history classes. Physicist W. Rory Coker taught an unusual and hilarious course called Pseudoscience which debunked scams, superstitions, cults, and medical quackery. I learned the psychology of pseudoscience and how to critically examine a claim of the paranormal. Finally, geographer Peter Dana at UT-Austin has been an ally and adviser in my academic pursuits for many years. He respects all questions, no matter how elementary or off-topic. And I ask a lot of questions. My experiences from middle school to grad school convinced me that some of the best minds go into education.

May 6, 2011

Abstract

Comparative Population Policy

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The University of Texas at Austin, 2011

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In the last thirty years an increasing number of governments are taking an interest in the growth rate and age structure of their populations. The chief concern among advanced economies is that pay-as-you-go pension and health care systems for the elderly will be unsustainable as the ratio of younger workers to older beneficiaries shrinks from aging populations. Resistance to reforms such as reduced or delayed benefits, or higher taxes has focused attention on a third option, growing the working-age population. There is a growing consensus on the economic benefits of population growth, a reversal from the 1960s through 80s. Governments try to grow the population through incentives for more children and/or accepting more immigrants. This report compares the population policies of Singapore, the United States, France, and Japan to analyze governments' motives and policy outcomes. Middle-income nations like China and Brazil can learn from the

experiences of developed nations to avoid the same predicament in the future. Each government's mix of fertility incentives, immigrants, and guest workers is a product of their economic and political circumstances. The surest way to grow the population, accepting immigrants, is usually the least popular. The most popular is the most unproven, providing benefits for larger families. There is no consensus what the most effective fertility incentives are. Population policy has never been just about the economy, it is steeped in political and cultural visions. Shedding that political baggage is a prerequisite to a more rational, sustainable policy approach to demography.

Table of Contents

List of Tables.....	xi
List of Figures.....	xii
Chapter 1: Introduction.....	1
1.1 Background and Motivation.....	1
1.2 Population Policy.....	3
1.3 The Demographic Transition Model.....	6
1.4 The Demographic-Economic Paradox.....	9
1.5 Population Policy Indicators.....	10
Chapter 2: Literature Review.....	16
2.1 Overview.....	16
2.2 Is Population Growth Good or Bad?.....	17
2.3 First Era of Modern Demography.....	18
2.4 Second Era of Modern Demography.....	22
2.5 The Demographic Dividend.....	26
2.6 Conclusion.....	29
Chapter 3: Comparative Population Policy.....	31
3.1 Overview.....	31
3.2 Singapore.....	31
3.2.1 Background.....	31
3.2.2 Old age support system.....	33
3.2.3 Family policies.....	35
3.2.4 Immigration policies.....	40
3.2.5 Conclusion.....	43
3.3 United States.....	44
3.3.1 Background.....	44
3.3.2 Old age support system.....	46
3.3.3 Family policies.....	49

3.3.4 Immigration policies.....	53
3.3.5 Conclusion.....	60
3.4 France.....	61
3.4.1 Background.....	61
3.4.2 Old age support system.....	63
3.4.3 Family policies.....	66
3.4.4 Immigration policies.....	73
3.4.5 Conclusion.....	77
3.5 Japan.....	79
3.5.1 Background.....	79
3.5.2 Old age support system.....	81
3.5.3 Family policies.....	85
3.5.4 Immigration policies.....	89
3.5.5 Conclusion.....	91
Chapter 4: Analysis and Recommendations.....	93
4.1 Determinants of Population Policy.....	93
4.2 Recommendations for Future Work.....	96
4.3 All Nations Should Maintain Growing Populations.....	98
4.4 Increasing the Workforce: Pro-Natalist Policies vs. Guest Worker Programs vs. Immigration.....	100
4.5 Most Effective Pro-Natalist Policies.....	102
4.6 Reforms to Help Old Age Support Systems Cope with Aging.....	103
Appendix.....	109
Bibliography.....	110
Vita.....	124

List of Tables

Table 1: Rise in pro-growth population policies according to the UN Population Division: 1976 - 2009.....	5
Table 2: Comparative dependency ratios: 1990 - 2030.....	14
Table 3: Age structure of Singapore: 2011 - 2030.....	33
Table 4: Age structure of the United States: 2011 - 2030.....	49
Table 5: Age structure of France: 2011 - 2030.....	63
Table 6: Age structure of Japan: 2011 - 2030.....	83

List of Figures

Figure 1: Demographic transition model, drawn by author.....	7
Figure 2: Japan's demographic transition: 1872 - 2004.....	8
Figure 3: Comparative fertility rates: 1960 - 2008.....	11
Figure 4: Comparative total dependency ratios: 1950 - 2010.....	13
Figure 5: Comparative old age dependency ratios: 1950 - 2010.....	13
Figure 6: Singapore fertility rates: 1960 - 2008.....	35
Figure 7: Singapore population characteristics: 1980 - 2010.....	41
Figure 8: United States fertility rates: 1960 - 2008.....	45
Figure 9: Source of official immigration to the United States: 1820 - 2009.....	54
Figure 10: Official immigration to the United States: 1820 - 2009.....	57
Figure 11: Expulsions of illegal aliens by the United States: 1892 - 2009.....	59
Figure 12: France fertility rates: 1960 - 2008.....	62
Figure 13: France's demographic transition: 1800 - 1980.....	69
Figure 14: Source of immigration to France: 1994 - 2008.....	75
Figure 15: Japan fertility rates: 1960 - 2008.....	80

Chapter 1: Introduction

1.1 BACKGROUND AND MOTIVATION

Rapid declines in fertility and increases in old age life expectancy in developed nations raise the specter of insolvent pension systems, higher taxes, and lower standards of living. Policy-makers have been slow to appreciate the public policy impacts of population growth and age structure. Most developed nations are now trying grow their population to varying degrees and mixed results. This report answers three research questions: What historical and economic factors explain population policy? What is the demographic future of advanced economies? How can public policy affect demographic destiny? I use four case studies in my analysis: Singapore, the United States, France, and Japan. Comparing national experiences with population policy compares different responses to a common demographic story, offering lessons on what works, what does not, and why. These nations cover a wide range of the developed world because each has unique cultural, political, and economic circumstances that affect political demography.

Why should a student of public policy study demography? Population change and age structures profoundly affect public finances, economic growth, and quality of life. Demographic transition from a young population to old emphasizes different government services throughout the transition. A young population will require higher education spending. Prisons expand to accommodate the surge in risk-taking young men. Schools and prisons shrink as the population ages, and the country enters a fiscal Golden Age in which a large share of the population is paying taxes and consuming fewer government services.

But the Golden Age inevitably transitions to an age of hard decisions as people retire and begin to consume pensions, health care, and nursing homes. The need for

ob/gyns and pediatricians gives way to gerontologists, oncologists, and a lot of nurses. Medical research, having conquered most problems affecting the young, shifts focus to old age conditions. In developed countries, education is the largest public expenditure on children. For the elderly, pensions, health care, and nursing homes are the largest draws on the treasury. Will a shrinking student population offset the growing senior population? Empirical evidence suggests it will not. American per pupil primary and secondary education spending for the 2009/2010 school year was \$10,451.¹ Per capita Social Security spending in 2009 was \$14,184 and Medicare \$11,743.² This estimate shows per capita American public spending on the 65+ population is roughly 2.4 times that of the 0-18 population.

The demographic transition has caused a decline of the family as a social safety net. Families have historically been the safety net against unemployment, disability, and old age. Large and extended families living close together spread the risk. In developed nations, smaller “nuclear” families have come to rely on the government to provide those services in lieu of the extended family.³ Many elderly who used to live with their children can now afford to live independently or in a nursing home thanks to pension and social welfare systems. The extended family was often the source of money for college, to start a business, and a foot in the employment door. As family sizes shrunk, citizens have turned to the government to provide services in a rational, equitable manner.

Policy-makers can shift these trends through careful examination and implementation of population policy.

¹ “Projections of Education Statistics to 2018”, National Center for Education Statistics, web, http://nces.ed.gov/programs/projections/projections2018/tables/table_34.asp, accessed March 15, 2011.

² Medicare Trustees Report 2010, <https://www.cms.gov/ReportsTrustFunds/downloads/tr2010.pdf>, accessed March 15, 2011.

³ Rudolf Andorka, *Determinants of Fertility in Advanced Societies*, London: Methuen, 1978. P. 21.

1.2 POPULATION POLICY

What is population policy? Unlike education or transportation policy, population policy cannot be easily defined. Many public policies affect parents' decisions on when to have children and how many to have, from urban planning to health care to the economy. Most countries have a set of policies that deal directly with marriage and fertility. Population policy motives are diverse, from humanitarianism to economic development to national security to long-term fiscal sustainability.

Policies that promote fertility are called “pro-natalist” policies. “Anti-natalist” policies discourage fertility. With the notable exception of China's One Child Policy, most anti-natalist policies are inadvertent. However, family planning in the developing world is often promoted as much for its anti-natalist effects as humanitarian relief because of the belief that lower fertility helps development (more on this theory in chapter 2). Policies affecting marriage and fertility are known as family policies. Most developed nations offer incentives for marriage and having children. The most common path to having children in the developed world looks like this:

Men:

Meet partner → Find stable job → Find own living space → Get married →
Have children

Women:

Meet partner → Find stable job → Find own living space → Get married →
Weigh children's impact on finances and career → Have children

To promote the end result, policies try to break down barriers to each step. For example, the Singaporean government organizes social events for singles to facilitate that first step.

Other common pro-natalist policies include:

- ⤴ Tax deductions for children, especially second and third children
- ⤴ Cash grants for newborn children
- ⤴ Subsidized daycare
- ⤴ Maternity and paternity leave
- ⤴ Education promotes parenthood
- ⤴ Limited access to contraceptives and abortion

Common anti-natalist policies include:

- ⤴ Promotion of family planning
- ⤴ Penalties for large families
- ⤴ Education emphasizes the dangers of over-population

Pro-natalist policies attack the direct and indirect costs of having a child. Direct costs are the expenses of raising a child. Indirect costs are the opportunity costs of working less and falling behind on career development. Low-income families have similar direct costs to but lower opportunity costs than high-income families. Thus cash grants are greater incentives to low-income families than family leave policies. Conversely, family leave policies are more tempting to high-income families than cash grants because the opportunity cost to a high-income couple is higher.

As of 2009, 136 countries have a policy on population according to the United Nations (UN) Population Division.⁴ Of those, 36 promote population growth, 67 discourage it, and 33 seek to maintain their current population. Table 1 shows the rise in pro-growth policies between 1976 and 2009. Pro-growth means the government wants to grow the population either through higher fertility rates or immigration. The latter two categories in Table 1 are more specific. There has been tremendous growth in the number of countries that promote higher fertility rates, from 13 in 1976 to 40 in 2009. Liberal immigration policies remain less popular, with only 16 countries actively seeking more immigrants.

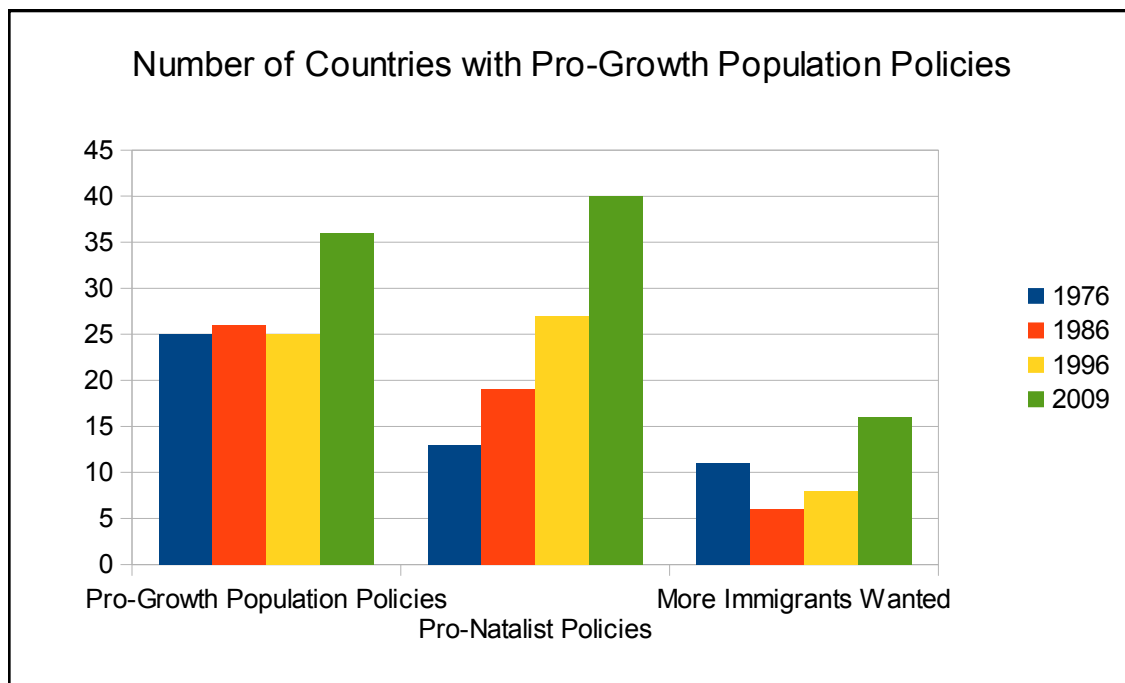


Table 1: Rise in pro-growth population policies according to the UN Population Division: 1976 - 2009

⁴ "World Population Policies 2009 Database." *United Nations Department of Economic and Social Affairs*. 2010 Web. Accessed 09 March 2011.

1.3 THE DEMOGRAPHIC TRANSITION MODEL

Western industrialization in the 19th century created enormous population growth through improvements in agriculture, public health, and medicine. Annual death rates declined faster than fertility rates. The population boom led some demographers like Thomas Malthus to predict population growth would outstrip growth in the food supply and lead to widespread poverty (more on Malthus in chapter 2). But as industrialization matured in the 19th and 20th centuries, demographers realized that fertility rates were dropping as well, sometimes faster than death rates. The American demographer Warren Thompson first theorized the Demographic Transition Model in 1929 which describes the transition from an under-developed economy to developed economy in terms of birth and death rates (see figure 1).⁵

⁵ Andorka, 18.

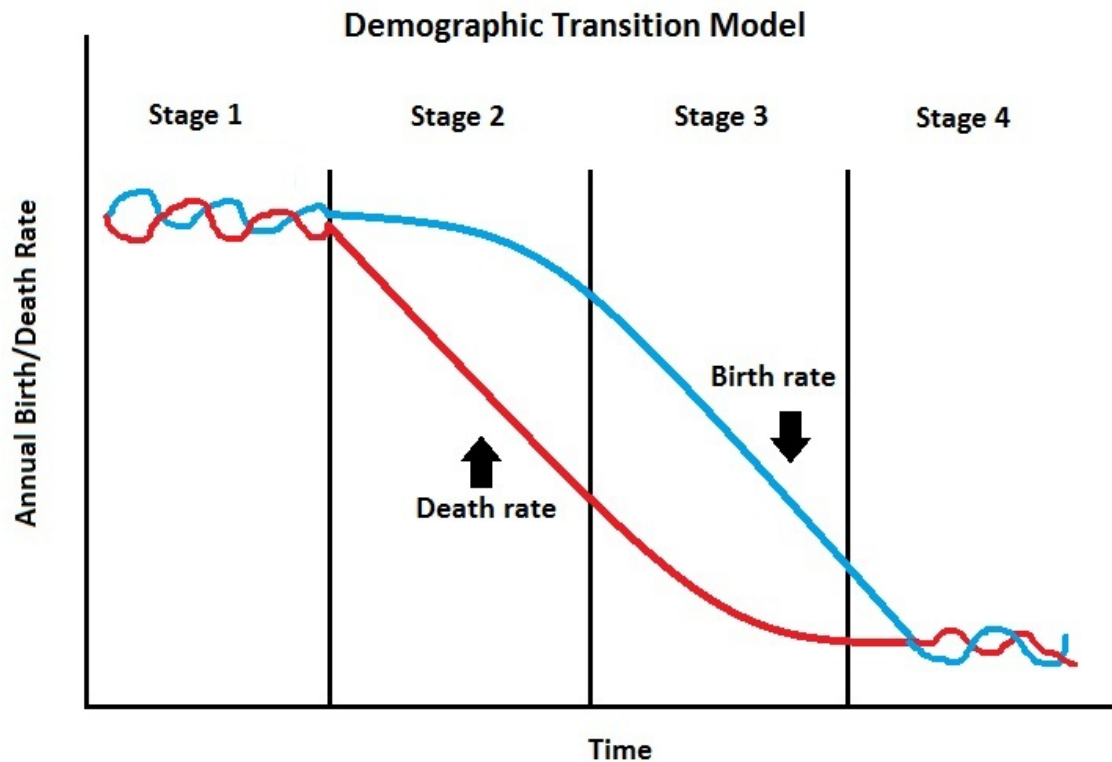


Figure 1: Demographic transition model, drawn by author

All developed nations are in stage 4, characterized by small changes in annual birth and death rates. Note that the demographic transition model does not account for immigration so a developed nation's population can increase in spite of low fertility, as is the case with Singapore. Stage 3 includes wealthier under-developed nations like South Africa and Malaysia. Stage 2 includes most Middle Eastern and African countries, while stage 1 is the domain of only war torn and despotic states such as Iraq from 2003-2007 and North Korea. Figure 2 shows Japan's demographic transition from 1872 to 2004. Death rates rise slower then fall faster than birth rates throughout industrialization and the post-war period. Births rise then fall rapidly after the war. Death rates increase slightly

from the 1980s because of an aging population. Population growth slows through post-industrialization and by 2008 the population had begun to decrease.

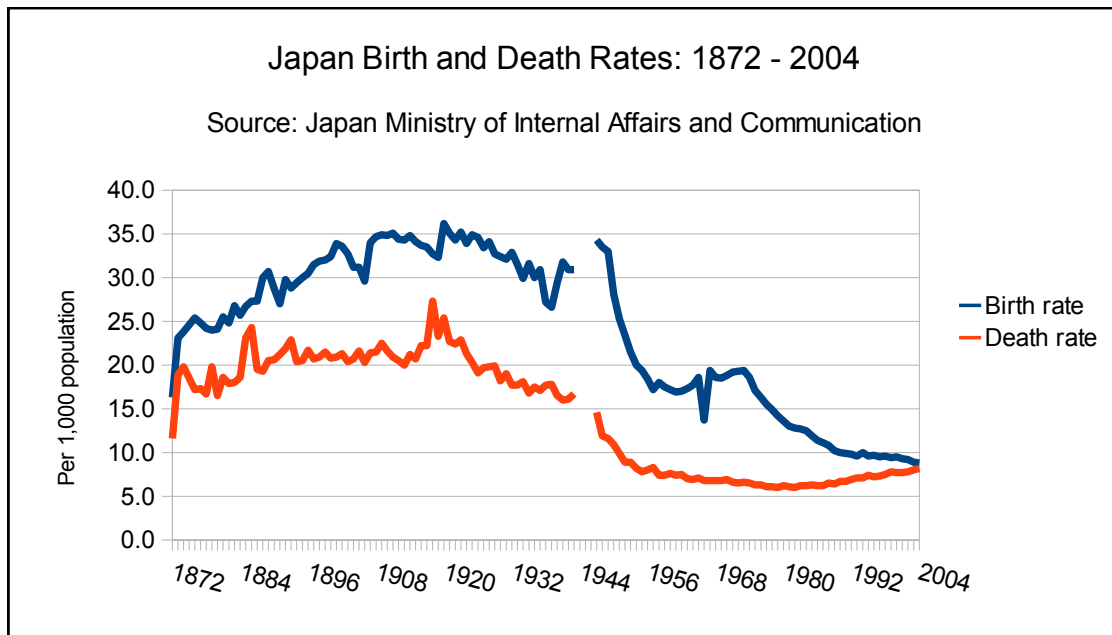


Figure 2: Japan's demographic transition: 1872 - 2004

The good news is demography is relatively predictable. Note how smooth the lines are for Japan's demographic transition after 1945. With no threat of a Great Power war or catastrophic pandemic, developed nations' populations will not suffer unexpected reductions. Medical incrementalism means we can expect small, steady reductions in infant mortality and increases in old age survival rates. Demographers and economists can easily project populations based on the natural increase. But population policies change things because no one knows how many immigrants a government will accept over the next decade, or what incentives for child-bearing it will offer.

1.4 THE DEMOGRAPHIC-ECONOMIC PARADOX

The demographic-economic paradox is the observation that poorer couples tend to have more children than wealthier couples. It is represented across income groups within a single country, across the globe between rich and poor countries, and over time for a single country. A conclusion from the 1974 UN World Population Conference was “development is the best contraceptive.”⁶ The difference in fertility rates is a paradox because intuitive thinking is that fertility decisions are a function of the means to support the children. A wealthy family can support more children so why do they have fewer?

The answer to the demographic-economic paradox is four-fold. First, when public health systems were weaker, infant and youth mortality were higher. A woman had to give birth to more children than she wanted knowing some would die before reaching adulthood. As infant and youth mortality declined, she could give birth to the exact number of children wanted.⁷ Second, children start working later and require more investment in advanced economies. Children can go to work at a very young age in agrarian societies, mid-teens in industrial societies, and 18+ in post-industrial societies where education rather than physical labor is key. Societal expectations of what constitutes good parents raise the cost of children. Grown children have more independence in an urban environment and contribute less to the family.⁸ As an economic investment, children made less sense *to parents* throughout industrialization.⁹ Society still reaped a net benefit from their labor. Rationale for children shifted from economic and sentimental to mostly just sentimental. The divergence in parental and societal economic interests regarding family size underpins population policy today.

⁶ Massimo Livi-Bacci, *A Concise History of World Population*, 3rd ed. Malden, MA: Blackwell, 2001. P. 149.

⁷ Julian L. Simon, *The Ultimate Resource 2*, Princeton, NJ: Princeton UP, 1996. P. 352.

⁸ Andorka, 20.

⁹ Ibid., 24.

Third, modern birth control methods have reduced the number of unwanted children. Couples have always practiced folk birth control methods including coitus interruptus, menstrual cycle timing, prolonging breast feeding, crude abortions, and infanticide. Their effectiveness could not compare to that of modern birth control methods. Modern contraceptives have proven more popular because they are safer and more effective.

These three explanations help explain why fertility rates drop as a nation develops: health systems improve and the economic rationale for children fades away. But they do not explain differences between socio-economic groups in the same country who are part of the same health and education systems as wealthier, less-fertile couples. The fourth explanation of the demographic-economic paradox looks to family backgrounds and culture. The personal value of children is heavily influenced by one's parents and peers. Parental backgrounds and values influence the likelihood a daughter goes to college, which delays and reduces fertility. Since religions tend to glorify children, religious people tend to want more children and use less birth control. There is also an urban-rural divide that encompasses cultural differences. Rural families tend to be more traditional and poorer than urban families, and there is an economic advantage to large families. The family background determinants of fertility are important in tailoring fertility incentives (more on this in section 4.2).

1.5 POPULATION POLICY INDICATORS

Demographers use two metrics to analyze population: total fertility rate (TFR), or fertility rate for short, and dependency ratios. Total fertility rate (TFR) is the number of

children a woman can be expected to have in her lifetime.¹⁰ It accounts for the delay in child-bearing as women get an education and start a career before marriage. A TFR of 2.1 in developed countries is generally considered replacement because there need to be two children to replace the two parents, and some will never have children of their. A TFR more than 2.1 is considered a positive natural growth rate because the two parents are replaced by more than two children. In developing countries with high infant mortality rates and other problems affecting youth, the replacement rate is higher. A TFR less than 2.1 indicates negative natural growth.

TFR's political significance is that if it is less than 2.1, immigration is necessary to maintain a stable population. Immigration policy can be extraordinarily contentious, even in countries that historically welcomed immigrants.

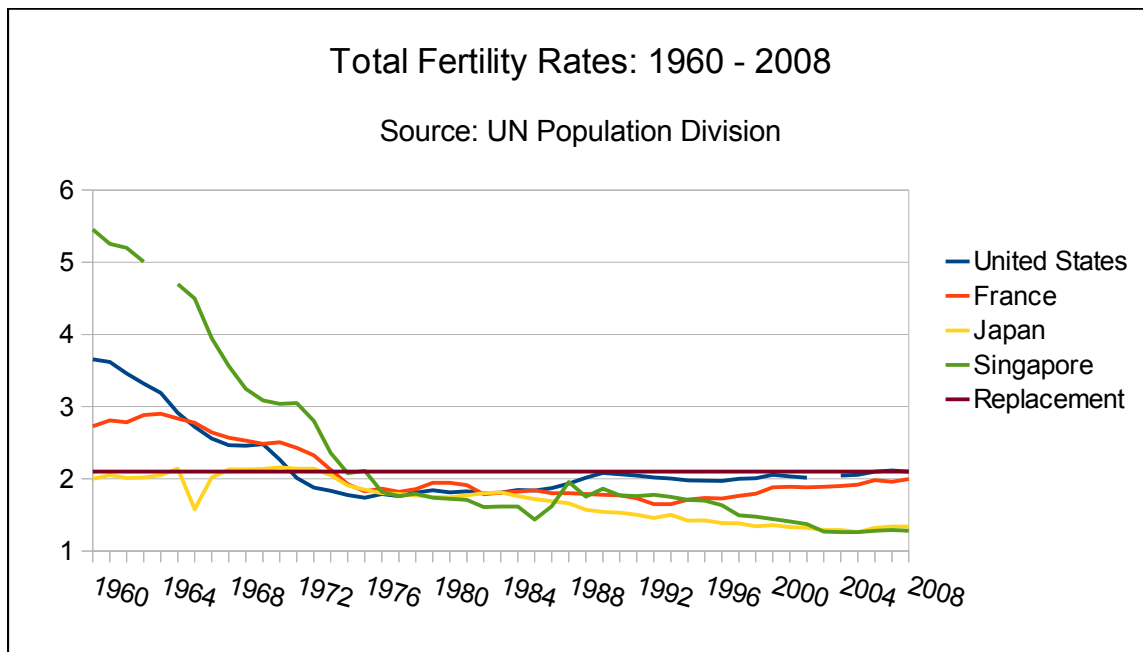


Figure 3: Comparative fertility rates: 1960 - 2008

¹⁰ "Definitions and Notes." *CIA World Factbook*, web, accessed 1 Jan. 2011, <<https://www.cia.gov/library/publications/the-world-factbook/docs/notesanddefs.html#T>>.

Figure 3 shows the decline in total fertility rates among the four case studies from 1960 to 2008, a period of sustained economic development. Singapore and Japan have seen nearly continual decline since 1960, which the United States and France have seen a slight rise since the 1980s.

Dependency ratios show the age structure of a population. They measure the proportion of the population that is dependent on the working population. The traditional dependency ratio is calculated:

$$\text{Total dependency ratio (TDR)} = \frac{\text{Population ages 0-14} + \text{Population aged 65+}}{\text{Population ages 15-64}}$$

The child dependency ratio is the population of those ages 0-14 divided by the population ages 15-64, and the old age dependency ratio is the population aged 65+ divided by the population ages 15-64. This assumes people start working at age 15 and retire at 65. In reality, most people in developed nations do not start working until 18-22 as they finish high school and college. Retirement ages vary in developed nations from 60-67 and many continue working in retirement. The traditional dependency ratio is imperfect but still useful in measuring the economic impact of aging. A low dependency ratio is desirable because it maximizes the population's productivity. Those aged 15-64 require the fewest public services, while those aged 65+ require the most.

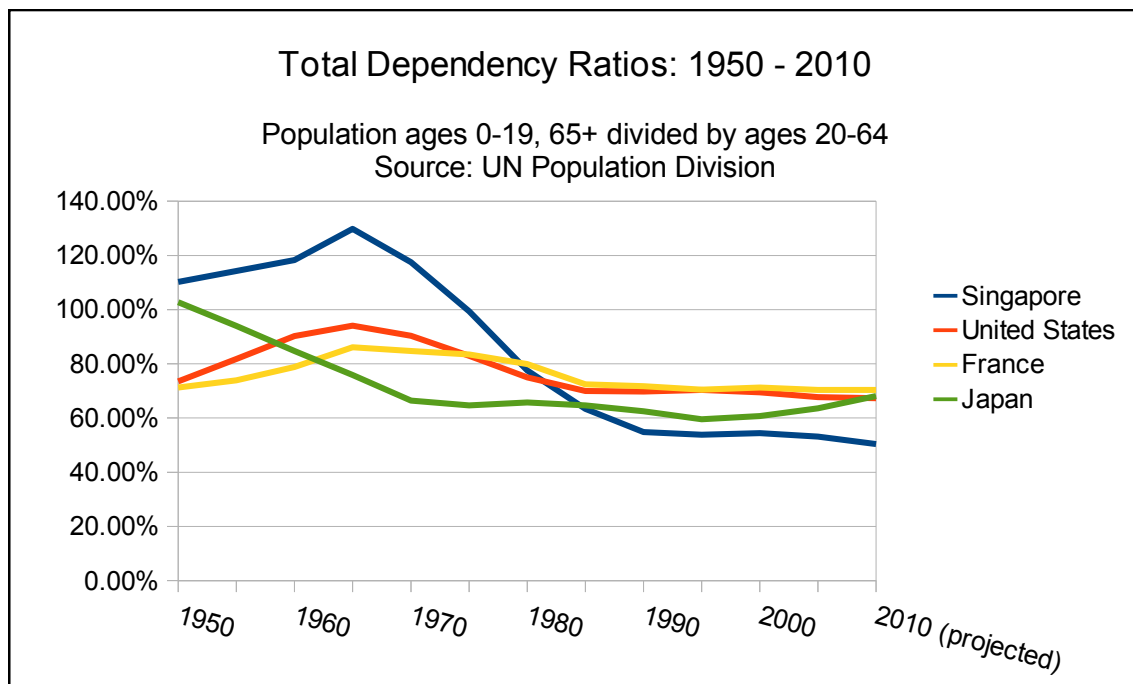


Figure 4: Comparative total dependency ratios: 1950 - 2010

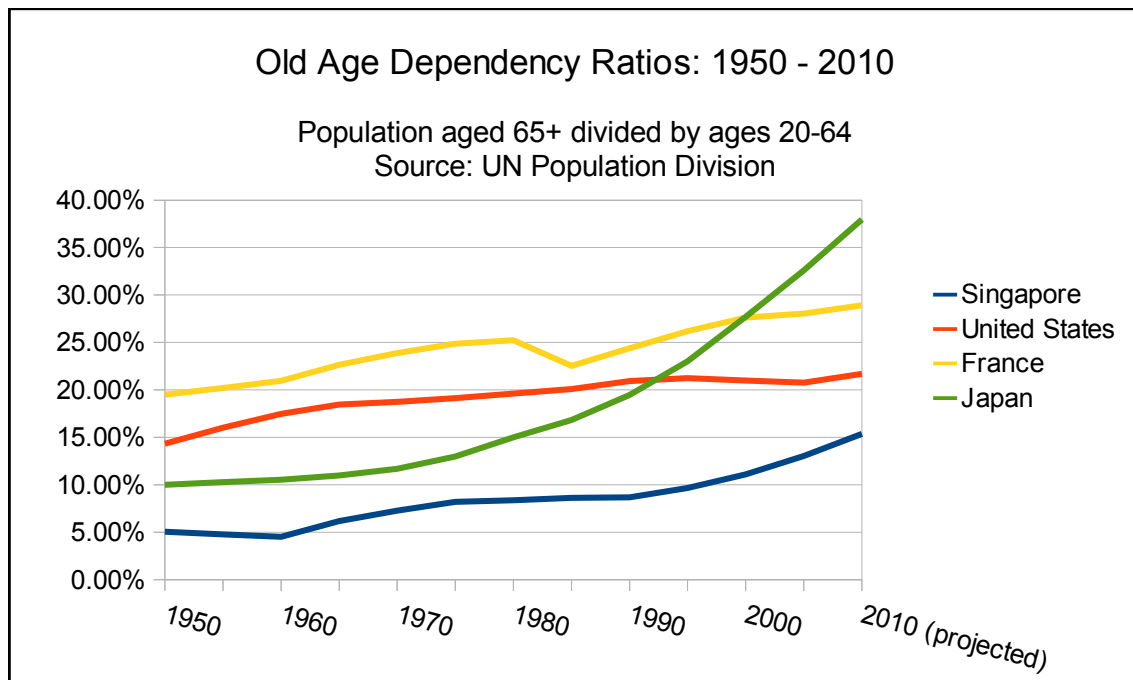


Figure 5: Comparative old age dependency ratios: 1950 - 2010

Figures 4 and 5 show the total dependency ratio (defined in this case as the population ages 0-19 and 65+ divided by ages 20-64) and old age dependency ratios (defined as the population 65+ divided by ages 20-64) of Singapore, the United States, France, and Japan. The TDR slopes downward as the post-World War II population bulge that moves through middle age. But the old age dependency ratio is rising.

Dependency Ratios

	Singapore			United States		
	1990	2011	2030	1990	2011	2030
Total	37.1%	29.9%	54.9%	52.0%	49.7%	63.5%
Child	29.4%	17.9%	17.1%	33.0%	30.1%	31.9%
Old Age	7.7%	12.0%	37.8%	19.0%	19.7%	31.6%
Share 65+	5.6%	9.2%	24.4%	12.5%	13.1%	19.3%
Share 0-19	29.8%	19.5%	15.1%	28.8%	27.0%	26.2%

	France			Japan		
	1990	2011	2030	1990	2011	2030
Total	51.9%	54.5%	65.3%	43.6%	56.3%	69.2%
Child	30.9%	28.7%	27.5%	26.4%	20.5%	18.1%
Old Age	21.0%	25.9%	37.9%	17.2%	35.8%	51.1%
Share 65+	13.8%	16.8%	22.9%	12.0%	22.9%	30.2%
Share 0-19	27.9%	24.5%	22.5%	26.5%	17.9%	14.7%

Source: U.S. Census

Table 2: Comparative dependency ratios: 1990 - 2030

Table 2 shows the change in dependency ratios from 1990 to 2030 (projected).¹¹ France and Japan's dependency ratios increased from 1990 to 2011 while Singapore and

¹¹ The Singapore projections for 2030 are inaccurate because the U.S. Census assumed that its immigration boom in the 1990s and 2000s was only temporary, according to an email from the Census' Chief of the Population Studies Branch on Feb. 14, 2011. They will be revising their projections later in 2011. The revised projections will probably show lower dependency ratios.

the United States' decreased because of strong immigration that adds population to the 15-64 bracket. Note the shift in dependency ratios from young to old, indicating that public services will be catering increasingly to the elderly.

Children are a positive externality because the people bearing most of the costs—their parents—are not the ones who reap most of the economic benefits—the national economy. Advanced societies have developed to the point where the economic rationale for children from the parents' perspective has mostly disappeared, leading to fewer children. In absence of large-scale immigration, aging is the inevitable result. The natural policy response to a positive externality is to subsidize it. Another option is to accept more immigrants.

Chapter 2 reviews the modern intellectual debate on whether population growth is good or bad. It will provide the backdrop to the policies seen in chapter 3. Chapter 3 compares the old age support systems and population policies of Singapore, the United States, France, and Japan to understand the political and economic context for population policies. I compare developed nations because they are seeing the most acute aging trends. Developing nations like China and Brazil will almost certainly face the same problems in a few decades. They can learn from the experiences of developed nations to prevent the same problems befalling them.

Chapter 4 analyzes the determinants of population policy and evaluates the key policies. I recommend further areas of research and suggest ways adapt old age support systems for aging. This is where developing nations like China and Brazil can learn from others' successes and mistakes.

Chapter 2: Literature Review

2.1 OVERVIEW

Public policy is a function of the nation's historical and economic context, among other factors. The wide range of perspectives and policies on population surveyed in chapter 3 is better understood through the shifting intellectual debate on demography.

For the vast trajectory of human civilization, society has encouraged large families and population growth. More people meant more farmers, soldiers, craftsmen who yielded more wealth, power, and territory. People were put to work at a young age, reproduced as soon as physiologically possible, and died at a relatively young age compared to today. Childhood and retirement, if the latter came at all, were so short that there was little burden on families. Only in the last two hundred out of six thousand years of recorded history have thinkers concerned themselves with ideas of overpopulation and unsustainable growth. Some intellectuals and policy-makers with different ideologies promoted population growth. In the 1950s and 60s, an academic bloc coalesced around the idea that rapid population growth was dangerous to social stability, prosperity, and international security. They pressed policy-makers around the world to control population. They joined womens' rights advocates in promoting access to birth control in the developing world.

Starting in the 1980s, the pendulum within academia began to swing back toward population growth being good. Economists and demographers forecasting populations decades into the future for Japan and Western Europe saw population decline without immigration. Aging and population decline's effects on economics and public policy became new subjects for research.

This sections surveys the modern history of thought on the key question of population policy: is population growth good or bad? There is a vast body of literature on demography so the section will only be an overview of the main people and ideas around the question.

2.2 IS POPULATION GROWTH GOOD OR BAD?

Traditional societies and religions have long celebrated children. In Genesis 1:28 of the Old Testament, God commands Adam and Eve to “Be fruitful and multiply and fill the Earth and subdue it”.¹² In the Qur'an, children are considered a gift from Allah.¹³ In the Islamic Hadith, the Prophet Mohammad advises a man to marry women capable of bearing many children: “He (the Prophet) said: Marry women who are loving and very prolific, for I shall outnumber the peoples by you.”¹⁴ Modern religious authorities uphold these ancient views. Pope Paul VI denounced population control in his 1965 speech to the UN General Assembly, saying leaders should “strive to multiply bread so that it suffices for the tables of mankind, and not rather favor an artificial control of birth, which would be irrational, in order to diminish the number of guests at the banquet of life”.¹⁵

Intellectuals and policy-makers in the modern era (1800 to present) have been all over the map regarding population growth. This section chronicles the modern intellectual history of opinions on population growth.

¹² *The HarperCollins Study Bible*, published 1989, 1st edition.

¹³ An-Nahl 16:72. *English Translation of the Message of the Qur'an*. Trans. Syed V. Ahamed.

¹⁴ Book 11, No. 2045. Sunan Abu-Dawud translation.

¹⁵ Pope Paul VI, "Pope Paul VI on Population and Development", *Population and Development Review* 4, 3 (1978): 540.

2.3 FIRST ERA OF MODERN DEMOGRAPHY

The modern era of demography starts with Thomas Robert Malthus, an English Anglican minister writing around the turn of the 19th century. Malthus wrote An Essay on Population in 1798 to express his fears that population growth was outstripping food production.¹⁶ He called this the “principle of population”, something that amounted to a natural law of civilization. Declining food per capita would cause ever more misery for the lower classes unless checked by self-restraint, war, or disease. The essay was a social look at contemporary history in Western Europe, a time when the Industrial Revolution was contributing to rapid population growth. However, Malthus did not use quantitative analysis with historical data, mainly because very little existed in the late 18th century. The first English census began in 1801, and England established the first registry of births and deaths in 1837.¹⁷ He stated that as time went on, conditions for the poor and then upper classes would worsen.

Such was Malthus' first edition of An Essay on Population. Subsequent editions theorized social policies to encourage self-restraint in fertility. Calling it “moral restraint”, Malthus said people should delay marriage until able to support a family financially, and the unmarried should be celibate. A married family could then have as many children as it wanted, contingent on financial means.¹⁸ These two principles would be sufficient to keep population growth in-check; the government did not need to get deeply involved in family planning. Malthus did not oppose all population growth because he saw child-baring as a necessary prerequisite to economic prosperity. Interestingly, Malthus disapproved of artificial birth control both because it accommodated pre-marital “immoral” lifestyles and lowered fertility rates within

¹⁶ D.V. Glass, ed. *Introduction to Malthus*. London: Watts and Co. 1953. P. 6, 27-29.

¹⁷ Ibid., 8.

¹⁸ Ibid., 26-29.

families.¹⁹ Emigration was only a short-term solution that kicked the can down the road; eventually there would be no land to emigrate to and the problems Malthus described would set in.²⁰

Malthus' "principle of population" was a radical idea but his policy prescriptions were moderate for his time. He clashed with other authors advocating more extreme and heavy-handed methods of population control. Yet, like other important intellectuals of the 19th century such as Charles Darwin and Karl Marx, his name was tarnished by later attempts at applying his ideas to policy. Academics have used the term "Malthusian" in every anti-population growth context for the last two centuries, usually to discredit population control policies. Malthus turned out to be empirically wrong on the assertion that population growth outstrips food production, a fact that was evident only a few decades after publication when better demographic and economic data became available. But his analysis on fertility self-restraint has a lot of relevance to modern theories of the decline in fertility described in section 1.4. Malthus advocated people restrain from having kids until they felt it was financially viable, the main reason citizens of developed countries also practice self-restraint (albeit through different methods than Malthus proposed).

Karl Marx strongly disagreed with Malthus. Marx saw more population as economically beneficial because society would have more labor and thus more wealth.²¹ Writing in Capital, Marx coined the phrase "reserve army of labor" to describe the unemployed, who were, in Marx's eyes, unemployed not because population growth outpaced production but because the capitalist system kept them looking for work to depress

¹⁹ Ibid., 29.

²⁰ Ibid.

²¹ Ibid., 14-15.

wages. Thus the capitalist system was inefficient and exploitative.²² In other words, capitalism, not rapid population growth, was to blame for poverty among the lower classes. For these reasons, Marx opposed population control measures aimed at the working class that he saw as attempts to forestall a revolution.

Malthus and Marx's concern for population growth arose from an international humanitarian interest (with divergent views of whether it was good or bad), but other thinkers in the 19th and early 20th centuries looked to power. European nationalism in 18th and 19th centuries was born under fire, with revolts immediately coming into conflict with monarchies. It was a context in which military strength was critical. The emphasis on national strength fed pro-natalist thinking. More people meant more soldiers, farmers, and workers. After World War I, French pro-natalists took dead aim at “neo-Malthusians” for undermining France.²³ Prominent among European nationalists was French emperor Napoleon Bonaparte who saw women's *raison d'être* as producing and raising children for the Empire.²⁴ The Napoleonic Code, instituted across much of France's European empire, reflected this view of the sexes. Revolutionary France expanded the government into new roles of education and science. Demography became a political issue in France, not just an academic one. The French government has since concerned itself with demography, nearly always with a pro-growth stance.²⁵

Many contrasts can be drawn between Malthusian and nationalist pro-natalist thinking. Malthus was looking at the “big picture”, the fate of human civilization. Bonaparte and other nationalists concerned themselves with the survival and prosperity

22 Ibid. Also Karl Marx, *Capital: A Critique of Political Economy*. Published 1867. PP. 334.

23 Richard Tomlinson, “The Disappearance of France, 1896-1940: French Politics and the Birth Rate” *The Historical Journal* 28, 2 (1985): 411, accessed March 3, 2011, doi: 10.1017/S0018246X00003198

24 Jane K. Burton. *Napoleon and the Woman Question*. Lubbock: Texas Tech UP, 2007. P. 177.

25 Leslie King. *France Needs Children*. *Sociological Quarterly* 39.1 (1998): 33-52. Also Magnus, George. *The Age of Aging*. Singapore: John Wiley & Sons (Asia): 2009. P. 17.

of the nation-state. Malthus thought individuals, acting morally and out of economic self-interest, were the best regulators of fertility, whereas the nationalists tended to use ideology and government policies to encourage having children.

Nationalism took extreme form in fascism in the first half of the 20th century, and with it emerged radical pro-natalist ideas intertwined with pseudo-scientific views on race. Fascist leaders Adolf Hitler and Benito Mussolini encouraged German and Italian families to have large families in order to strengthen their own nations and promote a “master race.”²⁶ Nazi Germany notoriously mandated sterilization and death for the mentally ill, Jews, Gypsies, Slavs, and other “undesirables.”

We have seen four distinct views on population growth in the West that I call the First Era of Modern Demography. First was the religious view that life was glorious and procreation a divine mandate. Having children was not a means to an end, it was the end. Most of human civilization has existed in a time of very slow population growth so having many children was necessary for survival. Then came Malthus with an economic-humanitarian critique of the “principle of population.” He feared if people did not practice self-restraint, the world would overpopulate. Marxists disagreed because since they saw labor as the major determinant of wealth, more people meant more labor meant more wealth. European nationalists also preferred population growth, seeing people as a military and economic asset rather than a burden. Taken to the fascist extreme, demography became a racial objective.

Fears of population growth receded in the late 19th and first of the 20th century. World Wars I and II wiped out so much of the West's population that in the post-war years governments promoted large families and immigration. Rising prosperity during

²⁶ Magnus, 16.

this era, punctuated by wars and depression, mocked Malthus' predictions of decline.²⁷ But rapid population growth in the under-developed world brought Malthus' thinking back into the mainstream of academia and policy-making.

2.4 SECOND ERA OF MODERN DEMOGRAPHY

Paul Ehrlich's The Population Bomb, published in 1968, started the Second Era of Modern Demography. Ehrlich predicted massive devastation to the world's poor nations if their populations continued growing faster than food production.²⁸ Unlike Malthus, he had the benefit of better statistics, evolutionary knowledge, and news of what was going on around the globe. Writing for a popular audience, he describes in vivid detail slums, famines, and environmental degradation in the under-developed world.²⁹ Ehrlich was an American biologist in the field of ecology, an area that studies the interactions between organisms and their environment. His focus on global ecology and environment using modern scientific methods, rather than ideology, distinguishes the Second Era from the First.

Ehrlich argued the foundation of over-population is that people want large families but large families have negative externalities. He suspected people want large families out of egoism and the sexual pleasure of childbearing.³⁰ Ehrlich called family planning through birth control a total failure in the developing world.³¹ To achieve his

²⁷ Magnus, 15.

²⁸ Paul R. Ehrlich. *The Population Bomb*. New York: Ballantine, 1968.

²⁹ Labels for poor countries keep changing. During the Cold War, the Third World referred to the non-aligned nations of Africa, Middle East, etc., with the First World being the developed West and Second World being Communist nations. Third World later came to mean poor but fell out of style with the end of the Cold War. Since then, terms like “pre-industrial” and “undeveloped” imply timeless societies, while “developing” sometimes gives the false impression of progress. This report uses “under-developed” and “developed” to distinguish advanced economies from developing economies. But language is always on the move so no doubt these terms will sound old-fashioned one day.

³⁰ Ehrlich, 83, 141.

³¹ Ibid., 81-94.

goal of zero or negative population growth, Ehrlich suggested higher taxes for large families, taxes on baby goods, and subsidizing sterilization, abortion, and adoption. Sex education would teach that sex need not be for reproduction. Finally, Ehrlich saw raising a large family a “plush lifestyle...being supported in part by more responsible members of society.”³² The idea that raising multiple children is an easy lifestyle is an unusual one.

The Population Bomb was a best seller in 1968 America. It galvanized environmentalists and humanitarians around the common cause of population control. The book seemed to confirm Malthus' prediction that rapid population growth was causing misery among the world's poor. Its tone was alarmist, urging policy makers to do something immediately or be doomed. Subsequent debate led to the emergence of a bloc of academics, NGOs, and policy-makers who said population control was needed to save the environment and alleviate poverty. Studies by the U.S. National Academy of Sciences in 1971 and UN in 1973 said population growth was bad.³³

One critic of The Population Bomb was economist Julian Lincoln Simon who wrote The Ultimate Resource in 1981 to argue population growth was good!³⁴ He rebuts Ehrlich's running-out-of-resources argument by saying increasing resource scarcity raises the price, making it more lucrative for resource extractors who innovate and invest to raise production. Higher prices also encourage conservation. The ultimate resource was the human mind which could adapt and innovate in the face of changing circumstances. Simon drew on the research of Danish economist Ester Boserup who showed that historical population pressures determined land use and agricultural innovation, rather than agriculture limiting population.³⁵

³² Ibid., 131

³³ David E. Bloom, David Canning, Jaypee Sevilla. *The Demographic Dividend: A New Perspective on the Economic Consequences of Population Change*. Santa Monica, CA: RAND Corporation, 2003. P. 3

³⁴ Julian L. Simon. *The Ultimate Resource*. Princeton: Princeton UP, 1981.

³⁵ Ibid., 376-377.

Adding to Boserup's thesis that population pressures were the mother of innovation, Simon plotted scientific discoveries in Ancient Greek and Roman history against population growth.³⁶ Comparing a nation against itself over time eliminated some of the cultural and political differences that affect scientific discovery. He found there was a positive correlation between population growth and more scientific discoveries. Population growth not only incentivized ancient Greeks and Romans to innovate, but more brains at work made more discoveries.

As a free-market economist, Simon believed strongly in the rational individual who, given the necessary information and freedom to choose, would make fertility decisions that were best for them and their family. He did not advocate pro-natalist policies.

Economist Simon Kuznets also defended population growth. Writing in 1960, Kuznets said that since the end of the 18th century, there has been no period of time when a country's population grew and per-capita income dropped.³⁷ Short declines in productivity and per-capita income came from crop failures and cyclical recessions. Kuznets argued that larger populations had more brains and potential for innovation which enabled more specialization in research. A hundred scientists can delve more deeply into distinct fields than ten scientists. The former has more potential for collaboration. So too goes the economy. A closed-economy with a population of a thousand can specialize more than an economy with a population of a hundred. Specialization is economically efficient because it allows a person to become an expert in one area, rather than merely good in many. Larger populations benefit from economies

³⁶ Ibid. 378-379.

³⁷ Simon Kuznets. "Population Change and Aggregate Output" in *Demographic and Economic Change in Developed Countries*. Princeton: Princeton UP: 1960: 324-351. P. 324.

of scale and shared knowledge more rapidly.³⁸ Kuznets cited John Maynard Keynes as demonstrating that a growing labor force has greater mobility than a stagnant one.³⁹

Kuznets drew an important distinction between population growth as a result of immigration or natural increase (the difference between birth rate and death rate). Another wrinkle is internal migration. While the American experience was unique in that immigrants often arrived in urban areas then moved to rural areas on the frontier, most later settled in urban areas, and were joined by American migrants from rural areas. Rural areas tended to have higher rates of natural growth while urban areas tended to have higher rates of immigration-driven growth. Kuznets thought this was a beneficial system that indicated high labor mobility, essential for a modern economy.⁴⁰

Kuznets spent considerable time debunking the idea that higher fertility rates reduces capital accumulation (the savings rate). He argues families tend to cannibalize their own consumption and leisure budgets to pay for children instead of reducing their savings rate. Children provide their parents an incentive to work more. On the issue of capital accumulation, he notes that, all things equal, if the population were stable, the rate at which retired people would divest would be equal to the rate people invest, yielding zero net aggregate savings. Population growth, on the other hand, would lead to a continual surplus in aggregate savings.⁴¹ This is a complex problem when considering the age structure of a population, changing economic conditions, and participation of foreign investors but the principle on its own is sound.

It is interesting that as early as 1960, Kuznets felt professional and popular writing had resoundingly attacked population growth with arguments that it hastened

³⁸ Ibid., 335-337.

³⁹ Ibid., 326.

⁴⁰ Ibid., 327-328.

⁴¹ Ibid., 331-332.

resource exhaustion, hurt societal organization, and reduced capital accumulation. This was eight years before Ehrlich published The Population Bomb. The Population Bomb, therefore, was possibly just an exclamation point to an already large body of literature critiquing population growth.

Since the 1980s, another school of thought has emerged to de-emphasize the role population growth plays in the economy. The “neutralist” view emerged primarily in opposition to the Malthus-Ehrlich catastrophism arguments to say population growth was *not* an impediment to economic growth.⁴² But the neutralist view does not promote population growth either. Other factors like monetary policy, trade policy, and the education system were seen as more important than just slowing population growth. A 2003 report published by the RAND Corporation argued this “neutralist” view has been the dominant view among researchers since the mid-1980s, and that demographic research has moved on to focus on the age structure of a population.⁴³ In developed nations, the age structure of their population is becoming a major policy issue this report addresses. In my view, the adoption of a neutralist view toward population will prove a transitory stage as advanced economies see the intrinsic benefits of population growth.

2.5 THE DEMOGRAPHIC DIVIDEND

Academics and policy-makers in the 1960s and 70s were increasingly concerned with the idea of Third World development. European empires were receding and leaving behind new nation-states whose governments shouldered the burden of developing a national identity, diverse economy, improving health and well-being, maintaining security, and retaining a level of international independence befitting a sovereign state.

⁴² Bloom, et. al., 7-20.

⁴³ Ibid.

Perceived vulnerability to Communism and Western guilt over their role in post-colonial states' under-development attracted the attention of social scientists to the development problem. Development economics remains an inter-disciplinary field with all branches of academia contributing ideas. Ideas include a free market economy, an independent judiciary, public works, and others. All are true to some extent but the relative importance of each is hotly debated.

Demographers' contribution to the debate was the idea that reducing fertility helps development—the demographic dividend.⁴⁴ It is undoubtedly the most important 20th century demographic idea for policy-makers. A consensus on the importance of reducing fertility in developing countries emerged from the 1984 UN International Conference on Population.⁴⁵ The demographic dividend refers to three alleged effects of reduced fertility. First, with fewer children parents can concentrate health and education expenditures. “Quality” of children is supposed to trump quantity. Second, having fewer children allows greater female participation in the workforce because women who might otherwise spend their time parenting can work.

Third, the demographic dividend temporarily reduces the dependency ratio. The bulge of working age population increases per-capita income simply because more of the population is working.⁴⁶ Children are a short-term drain on resources in two ways: the food, clothing, and services they consume, and the opportunity cost parents pay to raise their children. Even in situations where both parents work, women tend to earn less than men for the same work done, partly because employers factor in the risk that women may become pregnant and take maternity leave.

⁴⁴ Ronald Lee, and Andrew Mason. “What Is the Demographic Dividend?” *Finance and Development* 43.3 (2006). International Monetary Fund.

⁴⁵ Massimo Livi-Bacci. *A Concise History of World Population*. 3rd ed. Malden, MA: Blackwell, 2001. P. 167-171.

⁴⁶ Bloom, et. al, xi.

The bulge in working-age population lasts about fifty years.⁴⁷ As the bulge retires, developed countries face a demographic “anti-dividend” as they stop producing. Some of have argued that a *second demographic dividend* emerges out of the first as the bulge saves for old age. The increased capital accumulation yields continued and sustainable economic development regardless of the age structure of population.⁴⁸

Without using the term demographic dividend, Simon and Kuznets both critiqued its assumptions. Simon criticized the theory that population growth is bad for development by saying global per capita income, living standards, life expectancy, and every other quality of life metric have rapidly increased in the last two hundred years as human population also rapidly increased. If rapid population growth hurts human development, then the United States, Western Europe, and Japan should be basket cases today. Even if one does not agree that population growth is good for long-term growth in the standard of living, they have to acknowledge that population is not so great an impediment because of the empirical record of population growth and economic development occurring together for long periods of time.

Kuznets anticipated the second demographic dividend which predicts increased capital accumulation by saying as the elderly retire, they are forced to pull capital out of the market to fund their retirement. An imbalance between a small young population investing, and a large old population divesting will decrease overall capital.

Western old age support systems also reduce the need to save for retirement. Taxes on the working class are immediately transferred to the elderly through defined pension and health benefits. People know what kind of benefits to expect in retirement and save accordingly.

⁴⁷ Lee and Mason.

⁴⁸ Ibid.

2.6 CONCLUSION

The problem with theoretical models of population growth is they often assume a closed system. Kuznets' model of capital accumulation is only valid if there is no foreign investment. Selling pressures from a large elderly population will drive asset prices down unless the buyers include foreign investors.

Pre-industrial societies valued high fertility as an economic necessity. Economic activity was labor intensive and children the only source of support for parents in old age. Population growth rates remained low because of high mortality rates. Technological advancements from the Industrial Revolution sharply reduced mortality rates while fertility rates declined more slowly, leading to a population boom. Thomas Malthus saw this trend around the turn of the 19th century and predicted catastrophe for the world's working classes as population growth outpaced food production. He advocated “moral self-restraint” among people to delay marriage and have only as many kids as they could support. Radicals attacked him on both sides, some calling for coercive sterilization programs and Marxists accusing him of trying to keep the working classes weak.

Marxists and nationalists favored population growth because they saw people as assets rather than burdens. Since Marxism believed people created labor and labor created wealth, more people created more wealth. The nationalists thought more narrowly, looking at the economic and military advantage a larger population brings a country. Fascists took demography to the racial extreme, promoting population growth for desired ethnicities and “ethnic cleansing” for the undesirables.

Environmentalism and economic development emerged as research priorities in the post-World War II world. Both promoted anti-natalist policies for different reasons.

Paul Ehrlich argued in 1968 that the world's population would overwhelm available natural resources and cause famine and poverty. The birth of the demographic dividend was an economic approach to demography and Third World development. Several economists including Simon Kuznets and Julian Simon pushed back against anti-natalism to say population growth did not hurt standards of livings and might even be beneficial.

Among demographers, Malthus and Ehrlich's arguments have been thoroughly discredited. Researchers no longer fear population growth but still promote lower fertility rates in under-developed countries as key to the demographic dividend. Population policy research has diverged into two areas: what is good for under-developed nations, and what is good for developed nations. In developed countries, researchers are increasingly concerned with the inevitable result of a sharp decline in fertility—aging. They discuss many coping policies including, gradually, the adoption of pro-natalist policies.

Chapter 3: Comparative Population Policy

3.1 OVERVIEW

Demographers have divided their work into recommendations for under-developed and developed nations. They generally recommend anti-natalist policies to under-developed nations to speed development and mildly pro-natalist or pro-immigration policies to mitigate the consequences of aging for the developed nations. This report focuses on the population policies of developed nations as they grapple with near zero natural population growth, fertility rates below replacement, and rapidly aging populations. This section looks at four countries representing a cross-section of policies in this area: Singapore, the United States, France, and Japan.

3.2 SINGAPORE

3.2.1 Background

Singapore is a multi-ethnic city-state just north of the Equator in Southeast Asia. Founded as a British trading hub and entrepôt for China—Europe trade routes, the island attracted a thriving commercial class of Chinese, Malays, Tamils, Persians, Indonesians, and Europeans. The island's population has grown from 150 in 1819 to five million in 2010.⁴⁹ With no natural resources beyond its strategic location and natural harbor, trade was essential. The city was built on international trade and immigration, characteristics that influence its population policies today.

A siege mentality grew out of Singapore's experience in the 1960s and 70s. The British Empire granted Singapore independence in 1963, joined Malaysia the same year,

⁴⁹ Mui T. Yap. "Fertility and Population Policy: The Singapore Experience." *Journal of Population and Social Security* 1 (2002): 643-58. P. 644.

but separated in 1965. A fierce political battle between the PAP and Malaysia's government over the participation of ethnic Chinese in government led to Malaysia expelling Singapore in 1965 because Malaysia was afraid Chinese-majority Singapore would cause problems for Malay-dominated Malaysia. The separation personally hurt Singapore's long-serving Prime Minister Lee Kwan Yew.

Adding to Singapore's foreign relations fears, anti-Chinese riots in Malaysia and Indonesia well into the 1990s kept the country on edge. Communist victories in Vietnam, Laos, and Cambodia unnerved Singapore and created refugee problems. In the 2000s, fears of Islamic terrorism kept the siege mentality alive even though Singapore is arguably more secure now than it has ever been.

Since independence the country has been a one-party state. The People's Action Party (PAP), whose name belies its leftist roots, dominates politics with a technocratic governance style. As of 2011, the PAP controls 82 of 84 elected seats in Parliament. Singapore has been the “developmental state” described by Chalmers Johnson. The developmental state is where a strong central government guides economic development through an efficient, technocratic bureaucracy.⁵⁰ The developmental state differs from Marxist policies in that the means of production remain in private hands and international competitiveness is cultivated.⁵¹ Singapore's government has had no qualms steering society towards development goals using the education system, housing policy, conscription (known as National Service or NS), state-owned companies, and population policy.

⁵⁰ Chalmers Johnson. *MITI and the Japanese Miracle: The Growth of Industrial Policy, 1925-1975*. Stanford UP, 1982. P. 19-24.

⁵¹ Ibid.

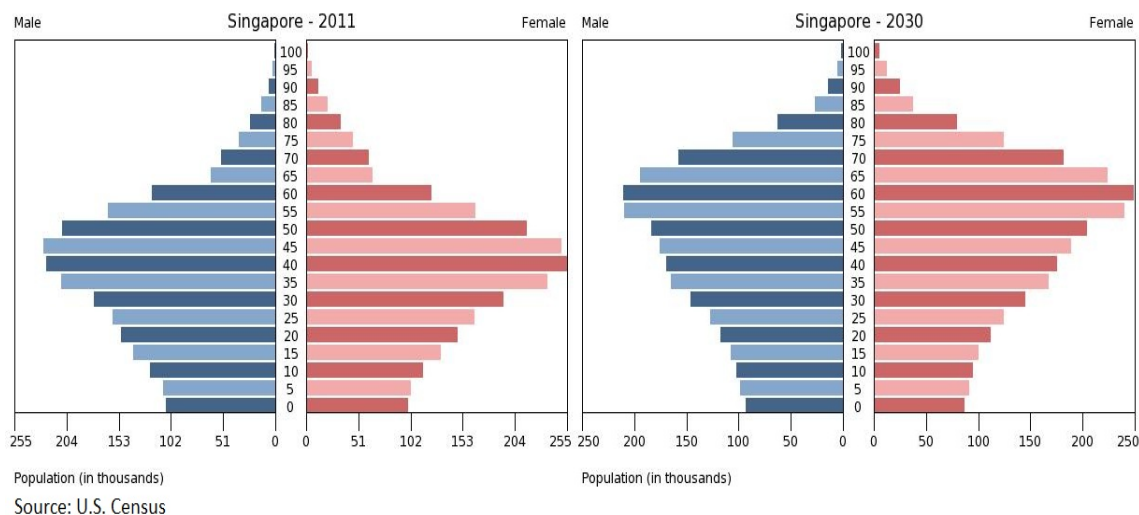


Table 3: Age structure of Singapore: 2011 - 2030

Table 3 shows Singapore in 2011 has a bulge in the 30-60 year old population. The left pyramid shows the classic demographic dividend, a bulge of working age population that temporarily lowers the dependency ratio. The right pyramid includes natural growth, immigration, and guest worker projections.⁵²

3.2.2 Old age support system

The primary social welfare system is the Central Provident Fund (CPF), a compulsory savings account that can be used for home purchases, medical expenses, and retirement.⁵³ Employee and employer contributions are mandatory, with most workers contributing 36 percent of their pay-check—20 percent paid by employees and 16 percent paid by employers as of 2006. Mandatory contributions and withdrawals are tax-

⁵² As stated in footnote 11, the 2030 projections are inaccurate because they assume the large number of foreign workers is only temporary, according to an email from the Census' Chief of Population Studies Branch. Given the long-standing pro-immigrant policy of Singapore, and long-term increases in foreigners as a share of total population, this is an unreasonable assumption, and the Census Chief agreed. He said to expect new projections that factor in the growth in foreigners in 2011.

⁵³ "Singapore." *Pension Funds Online*. Allianz Global Investors. Accessed January 29, 2011.

exempt.⁵⁴ Savings are managed individually through government-approved investment options. CPF accounts are individual accounts with no risk sharing or income distribution across the population. The only government benefit is the tax exemption and mandatory employer contributions. The government does not provide universal health care.

These characteristics make Singapore's pension system different from Western pensions which rely on taxes on the working age population. Singapore's pension system is resistant to the demographic dangers of the rest of the developed world, but exposes the individual to more risk and is less equitable in dispensing benefits. The CPF is known as a “defined contribution” plan because there is known contribution and an unknown benefit. The benefits are the result of the performance of investments and pace at which the owner withdraws their savings.

Supplementing the CPF are MediShield, MediFund, Eldercare Fund, and ElderShield. MediShield is an optional government-run, subsidized health insurance plan intended for catastrophic illnesses.⁵⁵ It is only offered up to age 85. MediFund assists low-income patients. The Eldercare programs are a recent addition to Singapore's old age support system. Eldercare provides grants to charities that serve the elderly and is expected to distribute \$1.8 billion in 2010.⁵⁶ Eldershield is an optional insurance plan to cover long-term care. Benefits are capped at \$283 a month in 2010 for 72 months.⁵⁷

⁵⁴ Ibid.

⁵⁵ Meng-Kin Lim, "Health Care Reforms in Singapore" Ed. Kieke G. H. Okma. *Six Countries, Six Reform Models: the Healthcare Reform Experience of Israel, the Netherlands, New Zealand, Singapore, Switzerland and Taiwan : Healthcare Reforms "under the Radar Screen"* Hackensack, NJ: World Scientific, 2010. P. 114.

⁵⁶ Ibid., 118.

⁵⁷ Ibid.

3.2.3 Family policies

Singapore's population policy is shaped by the country's three fundamental characteristics: multi-ethnic tradition, siege mentality, and constant thirst for economic development. The country's population policies are typical of the developed countries: anti-natalist policies from 1949 to 1984 to reduce population growth and raise living standards, followed by a reversal into pro-natalist policies from 1984 to the present when the total fertility rate (TFR) fell below replacement in 1977.⁵⁸ Like other developed nations profiled in this report, the pro-natalist policies have been largely ineffective, forcing Singapore to accept more immigrants. Unlike some of the other nations profiled, Singapore has experienced few problems integrating immigrants into society.

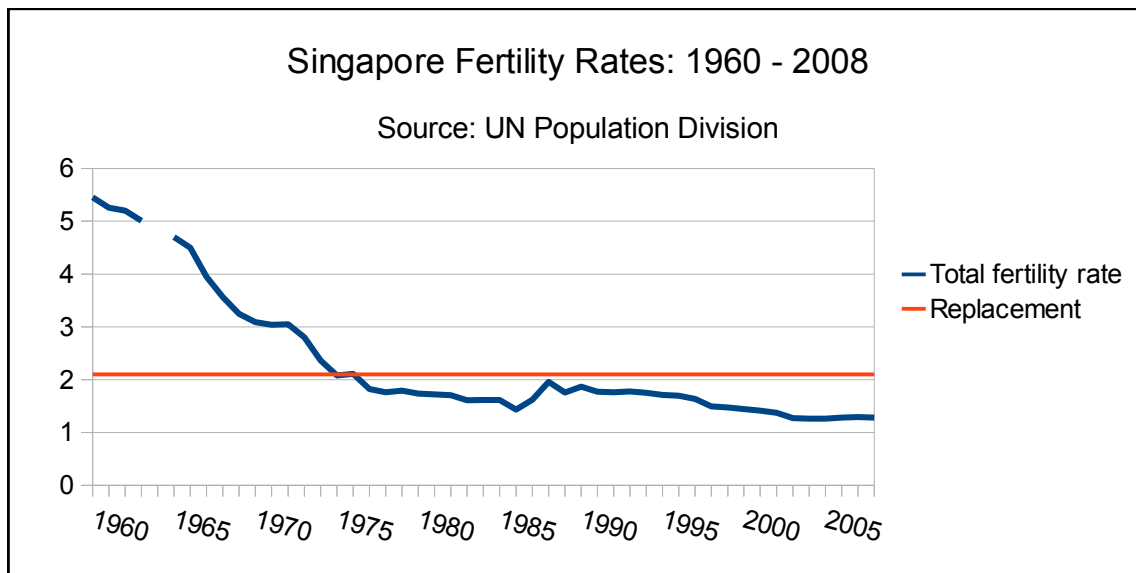


Figure 6: Singapore fertility rates: 1960 - 2008

Figure 6 shows Singapore's rapid decline in fertility rates interrupted only by a short-lived boom in the late 1980s. The island's population grew at an annual rate of

⁵⁸ Swee-Hock Saw. *Population Policies and Programmes in Singapore*. Singapore: Institute of Southeast Asian Studies.

about five percent in the post-World War II years from a high fertility rate and immigration inflow, putting pressure on the housing and education infrastructure.⁵⁹ The British colonial government's Social Welfare Department was running food centers for children.⁶⁰ In response to perceived overcrowding and the growing trend worldwide of anti-natalist thinking, concerned residents established the Family Planning Association (FPA) in 1949 to educate and advocate to couples on family planning techniques.⁶¹ Sustained annual increases in the number of visits to FPA clinics show strong demand for family planning in the 1950s and 60s. In 1950, there were 1,871 visits to the clinics. By 1965 the number had risen to 27,054 visits, the majority of which were women returning to re-supply oral contraceptives that came on to the market in 1961.⁶² The government supported it with increasingly large grants from 1949 to 1958, then declining grants from 1959 to 1968 when government support ended as the newly sovereign Singaporean government took the lead in promoting family planning.⁶³

In 1966, the government established the Singapore Family Planning and Population Board (SFPPB) with the same objectives as the FPA but with an eye to social and economic development rather than humanitarianism.⁶⁴ The SFPPB had more resources and staff than the FPA, a more professional organization, and as a governmental entity more power. From 1968 to 1977, several trends in family planning emerged. One was that the women seeking birth control were increasingly younger and better educated. They were seeking birth control increasingly to space their children

⁵⁹ Ibid., 11.

⁶⁰ Ibid., 8-9.

⁶¹ Ibid.

⁶² Ibid., 15.

⁶³ Ibid., 11.

⁶⁴ Ibid., 25-26.

rather than being unable to financially support them.⁶⁵ These trends reflected the increasing prosperity and education in Singapore.

Singapore legalized abortion with the approval of a social welfare board in 1970.⁶⁶ In the preceding debate, the Minister of Health argued that the government should provide a back-up plan for contraceptives it provided.⁶⁷ If the government was going to aggressively promote family planning and provide contraceptives that later failed, and then forbid abortions, women would feel betrayed. Prime Minister Lee Kwan Yew saw abortion as another birth control tool to limit children a couple could not afford.⁶⁸ He saw family planning as part of national development in raising the “quality” of the population.

In addition to state-encouraged family planning, Singapore's anti-natalist policies included punishing large families with lower priority public housing and education.⁶⁹ Families can register for new public housing flats and choose their primary school with smaller families getting preference. Over 80 percent of Singaporeans live in public housing so these were significant disincentives to having children especially since larger living space is crucial to having more children.⁷⁰

Fertility rates fell from five in 1965 to two in 1975. By 1977, Singapore's TFR fell below replacement, meaning without a net inflow of immigrants or a rise in the fertility rate, the population would decrease in the long-run.⁷¹ The government began to rethink its policies and in 1983 Prime Minister Lee publicly called for more children to

⁶⁵ Ibid., 33.

⁶⁶ Ibid., 47.

⁶⁷ Ibid., 44.

⁶⁸ Ibid., 46.

⁶⁹ Yap, 651.

⁷⁰ Ibid.

⁷¹ Ibid., 644.

better educated parents to “ensure that the next generation will not be too depleted of the talented.”⁷² Lee was concerned about the demographic-economic paradox.

The government saw a problem when educated women were having fewer children than less-educated women. Lee worried the education system could only do so much and that good parenting was crucial to the success of Singapore. The implication was that educated parents raised better children. This is a untenable policy position in many countries so much be considered part of the unique Singapore context.

Singapore introduced a host of pro-natalist policies targeted at educated women in 1984. Children of mothers with a university degree or professional qualifications got priority in registering for primary school.⁷³ The Education Minister saw it as largely ineffective and unpopular and shut it down after one year. Educated women received up to S\$10,000 for each child up to three. The incentive was based on a percentage of the woman's income to account for the opportunity cost in taking time away from their career. The government also set up the Social Development Unit (SDU) to help single, college graduate government employees find partners.

Anti-natalist policies targeted low-income, low-educated families. Women from these groups got S\$10,000 for getting sterilized before age 30 if they had no more than two children. Government hospitals standardized their delivery fees across all neighborhoods, effectively raising childbirth costs for poorer families.

The government introduced further incentives in 1987 and 2001. Singaporeans could use their CPF accounts to pay for hospital fees for the third child. Public housing was made more accessible to young couples. The government discouraged sterilization

⁷² Ibid., 652.

⁷³ Ibid.

and abortion for all demographics, and gave cash incentives to low-income, low-education families for birth control rather than sterilization.⁷⁴

In 2000, Prime Minister Goh Chok Tong warned of the inevitable population decline if TFR stayed at 1.48, well below replacement of 2.1, and no immigrants were accepted. He said immigrants were not a substitute for Singaporeans, implying there was a unique Singaporean culture that was passed down through parents rather than the education system or society. He called for a “total environment conducive to raising a family.”

The new Child Development Co-Savings Scheme gave large financial incentives to families for their second and third child. Families received S\$500 per year for six years for the second child, and S\$1,000 per year for six years for the third child. The program also created a Child Development Account that could be used to pay for child care and kindergartens, funded by the parents' contributions up to S\$1,000 per year for the second birth and S\$2,000 per year for the third birth, which would be matched 1:1 by the government. The children had to be Singaporean citizens and not adopted. The government started reimbursing employers for eight weeks of paid maternity leave for the third child.

The government began pushing family-friendly policies within the public and private sectors, including paternity leaves, childcare subsidies, deferred down payments on public housing in order to get young couples into their own flat quickly, and pro-family focus in the education system. Singapore's three universities built more on-campus housing, subsidizing the fees in order to encourage Singaporean students to get out of the house and meet their peers.⁷⁵

⁷⁴ Ibid., 655.

⁷⁵ Ibid., 657.

Singapore's pro-natalist policies are a reversal from the 1950s – 70s when the government discouraged children. Children back then were seen as a resource burden rather than a national asset and investment. The first pro-natalist policies in the 1980s focused on compensating for the economic burden of child-rearing. By 2000, the government recognized that social trends were also to blame for the falling fertility rate. Young couples no longer tolerated living with multiple generations under the same roof. They delayed marriage and children until they could move into their own apartment. Young women's expectation of a career equal to men put a huge financial opportunity cost on having children. And with modern financial systems, an individual could save for their own retirement rather than rely on their children.

From 1980-1984, the TFR averaged 1.68. From 1985-1990, the TFR averaged 1.71, a gain of 1.75 percent. But those numbers are skewed by an extraordinarily fertile year in 1988 because double 8s are positive symbols in Chinese culture. After peaking in 1988, TFR continued its slide downwards and show no increase from the 2001 incentives. In 2008, TFR was 1.28, the third lowest in the world (after Hong Kong and South Korea).

3.2.4 Immigration policies

The other half to population policy is immigration. Immigrants have been central to Singapore's culture since its establishment as a British trading colony in 1819 in which free immigration was the law.⁷⁶ The British finally restricted the inflow in 1928 but immigrants continued to account for the majority of population growth until World War II. Since independence in 1965 the government has maintained comparatively liberal

⁷⁶ Brenda S.A. Yeoh. *Singapore: Hungry for Foreign Workers at All Skill Levels*. Migration Information Source: Jan. 2007.

immigration policies that make it easy for foreigners to work in Singapore. Singapore has three categories of residency: citizens, permanent residents (PRs), and non-residents. PRs are foreigners who enjoy all the benefits as citizens and must serve in the military, but cannot vote. Non-residents are international students and guest workers. At independence in 1965, there were 58,000 non-residents on the island, about 2.9 percent of the population.⁷⁷ By 1980 there were 131,800 non-residents comprising 5.5 percent of the total population, and by 2010 there were 1.3 million non-residents comprising an incredible 25.7 percent of the total population (see Figure 7).⁷⁸ Since 1980, non-resident immigration has accounted for 44 percent of Singapore's population growth.

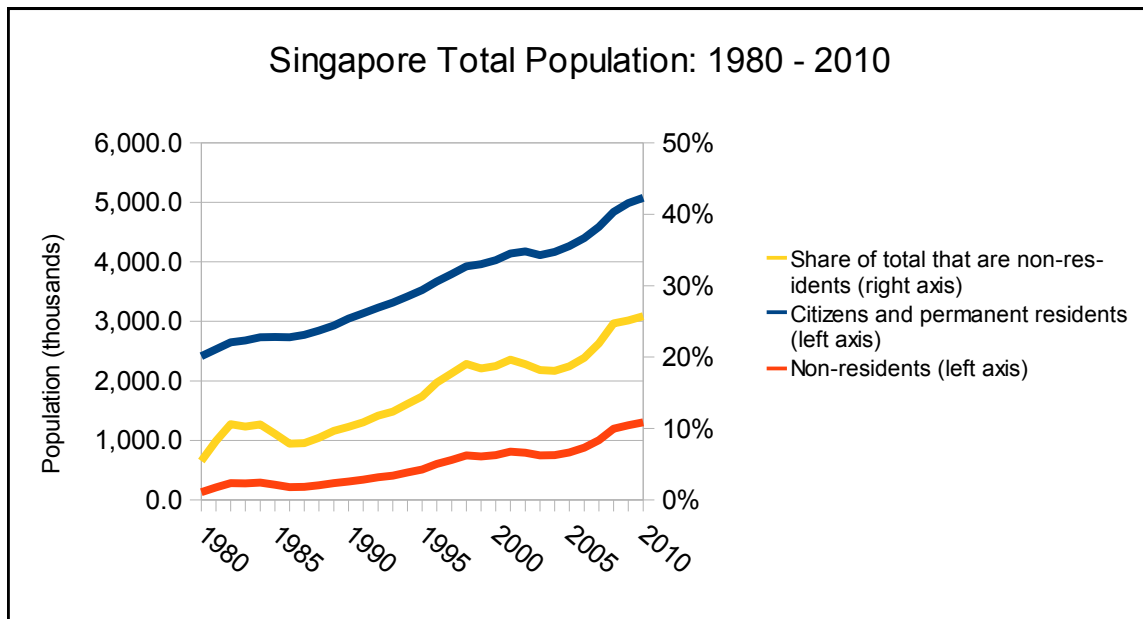


Figure 7: Singapore population characteristics: 1980 - 2010

Immigration policies tightened in the 1960s after independence because of strong natural growth and the need to establish a Singaporean identity. But decades of strong

⁷⁷ Ibid.

⁷⁸ Singapore Department of Statistics website, accessed January 20, 2011.

economic growth and an advancing economy created demand for foreign workers of all skills levels. Job growth outpaced the natural population growth, and the education system could not train workers to fill every niche in the economy. Foreigners arrived as construction workers, maids, hospitality workers, managers, analysts, engineers, and nurses. Today there are dedicated guest worker visas for various levels of income and education. The government also wants to double the number of international students from 66,000 in 2005 to 150,000 in 2012.⁷⁹ International students are eligible for a tuition grant subsidized their education if they agree to work in Singapore for three years after graduation. In practice, Singapore gets a lot longer than three years out of grantees. As PRs they can bring their family to Singapore, will be three years into a career, and seven years into the Singapore experience.

The government still maintains tight controls on who becomes a citizen. Citizenship is granted by birth in Singapore only if one parent is a Singaporean. The same goes for children born outside the country.

On balance Singapore has integrated the swelling immigrant population well because of its history. Singaporean identity was never tied up in a single ethnicity. Ethnic violence is unheard of, in part because the government keeps a tight lid on free speech. Reporters Without Borders ranks Singapore 136th out of 178 countries for press freedom in 2010, behind even Iraq.⁸⁰ The government is especially watchful for any speech it claims will incite violence. Opposition leaders have been sued into bankruptcy through libel laws when they criticized government leaders. Public demonstrations are forbidden everywhere except one park. It is hard to gauge the true degree of Singaporean acceptance of immigration policy in a one-party state that dominates public discourse.

⁷⁹ Yeoh, 2007.

⁸⁰ Reporters Without Borders, *Press Freedom Index*, 2010.

One advantage of having 25 percent of the population with only temporary residency permits is the government can deport them if they cause trouble or cannot find a job. Unemployment in December 2010 was an envious 2.2 percent, compared to the United States' 9 percent in Jan. 2011.⁸¹

In the last few years, the government has hinted that it was scaling back its liberal guest worker policies. A high level commission called for fewer foreign workers in 2010 because open door policies took the focus off improving Singaporeans' skills.⁸² The commission also noted domestic discontent about foreigners depressing wages. Later that year, the government tightened immigration policies. But Wong Kan Seng, Minister for Home Affairs, reminded Singaporeans that this was not a fundamental shift in attitude toward immigration: "Unless there is a significant shift in attitudes towards marriage and parenthood, and we see improved birth rates, we will continue to need immigrants for Singapore to remain a vibrant and competitive economy."⁸³

3.2.5 Conclusion

Singapore's population policies offer lessons to other developed nations struggling with an aging citizenry. Fertility incentives have failed but immigration and guest worker programs have enabled strong economic growth. Singapore benefits from a history of immigration and multi-ethnic culture that works well with foreigners. A strong central government and island geography create strong borders that prevent unwanted immigration. An important question is how Singaporeans truly feel about immigration, a

⁸¹ Singapore Department of Statistics, U.S. Bureau of Labor Statistics website. Accessed January 20, 2011.

⁸² Alex Kennedy. "Singapore Mulls New Limits on Foreign Workers." *Jakarta Globe*. Feb. 1, 2010.

⁸³ "Singapore Raises the Bar on PR for Million Dollar Investors." *Guide Me Singapore.com*. Oct. 5, 2010.

question that can only be answered in an open civil society. But the economic benefits of liberal immigration and guest worker policies are unambiguous.

3.3 UNITED STATES

3.3.1 Background

As the largest economy and third most populous nation, and ninth richest nation per capita in the world, the United States' population policies are an essential part of this report. The U.S. is in the population neutralist camp with no official population policy. It has the third highest fertility rate in the OECD after Israel and Turkey. TFR was 3.7 in 1960 at the height of the post-World War II Baby Boom when the United States saw rapid economic expansion and families had children they delayed during the war. Fertility rates fell rapidly from 3.7 in 1960 to 1.7 in 1976, following a trend across the developed world with increased access to family planning and abortion, and greater female attendance of college.

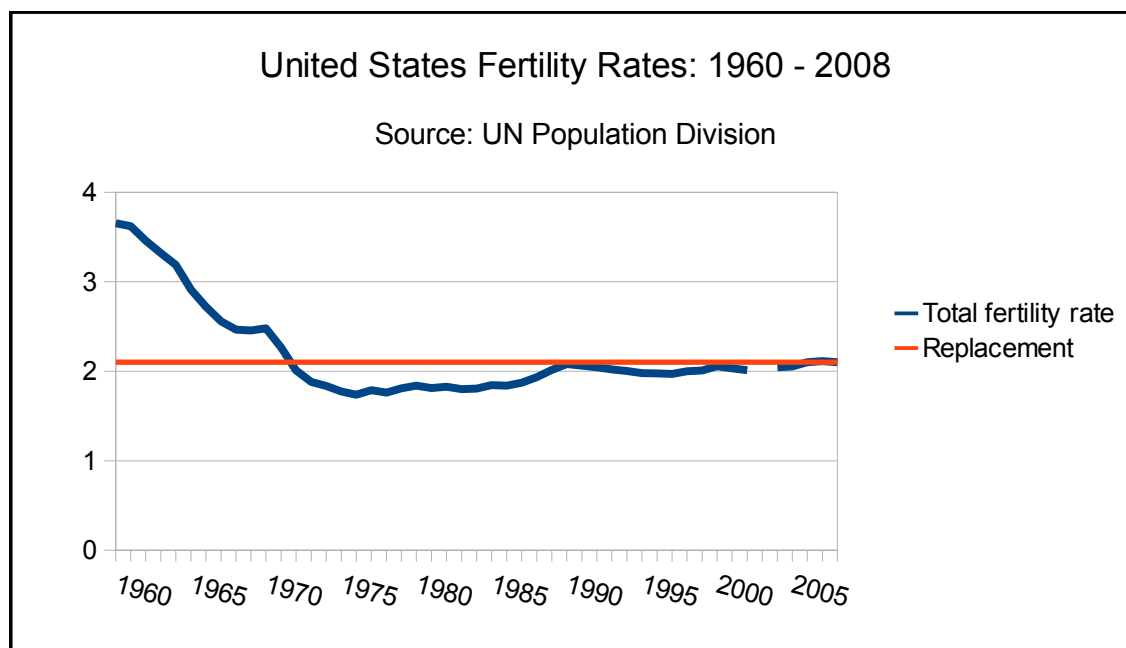


Figure 8: United States fertility rates: 1960 - 2008

But the 1980s saw a rise in fertility rates unprecedented in the developed world (see Figure 8). There is no consensus as to why this occurred but the most common explanations are the high number of immigrants with high fertility rates, a revival in religiosity, easy credit allowing home purchases, increased economic freedom, increased ease at which women can work and have children, and a stronger economy.⁸⁴ These trends are mostly valid in comparing the U.S. to Western Europe as well. No one factor can explain Americans' high fertility rates compared to the rest of the developed world because there are always counter-examples. For example, economic freedom and opportunities in Singapore and Hong Kong are the highest in the world yet they have the lowest fertility rates in the world.

⁸⁴ Rob Stein. *U.S. Fertility Hits 35-Year High, Stabilizing Population*. And: Tomas Frejka and Charles F. Weston. "Religion, Religiousness and Fertility in the US and in Europe." *European Journal of Population* (2008).

Immigration is an essential part of the American narrative. School children learn early and often that America was founded by immigrants looking for religious freedom or economic opportunity. Immigration policies have been some of the most open in the world since the United States' founding in 1776. Birthright citizenship and no official language, religion or ethnicity helped make the United States a comparatively welcoming environment for immigrants. The history of American immigration policies is one of alternating open and nativist periods depending on the economic and political situation. Nativist reactionaries have always been a player in United States immigration policy, frequently using violence or racist speech. Their influence in the long-run has been minor, however. Immigration has been an important driver of United States population growth since the first colonists arrived in the 16th century.

High fertility rates and high immigration mean U.S. does not see the same demographic storm clouds on the horizon other developed nations do, and the government has never pursued explicitly pro-natalist policies. Nevertheless, policy researchers have noted the demographic vulnerabilities of American pension plans for decades. This is a warning to other nations in worse demographic shape: that even if high population growth America is facing long-term problems, other countries are in worse shape.

3.3.2 Old age support system

Retirement in the U.S. is assisted by various federal, state, and local, public and private programs, depending on one's profession. The largest two are Social Security and Medicare which cover all United States citizens, except those with job-specific pensions, starting at age 62 for Social Security and 65 for Medicare, plus those with disabilities and

certain chronic diseases. They are defined benefit plans in which benefits are relatively fixed. Social Security makes cash payments to beneficiaries indexed to their lifetime earnings and an annual cost of living adjustment (COLA).⁸⁵ In 2010, 54 million beneficiaries received an average annual benefit of \$12,888.⁸⁶ Social Security is funded by a 10.4 percent payroll tax on the first \$106,800 as of 2011. Employees pay 4.2 percent and employers pay 6.2 percent.

Medicare is a health insurance program for seniors and the disabled. It has four parts: Part A is hospital insurance and covers inpatient care as well as skilled nursing care. Part B covers outpatient products and services, Part C is subsidized private insurance plans, and Part D covers prescription drugs. In 2009, Medicare paid out an average of \$11,743 in benefits to 46.3 million beneficiaries.⁸⁷

Because Social Security and Medicare both rely on taxes on the working population to fund defined benefits, they are demographically vulnerable. In 2010, Social Security had 2.9 tax-paying workers per beneficiary, a ratio that is projected to shrink to 2.1 by 2035.⁸⁸ There were 3.5 workers per Medicare beneficiary in 2010, and the Medicare Trustees Board projects it to shrink to 2.3 in 2030. Several demographic trends will converge over the next decades to imperil Social Security and Medicare: increased life expectancy for those living to 65, the retirement of the post-World War II “Baby Boom” population, and falling fertility rates leading to fewer workers to support. Even worse is Medicare whose per beneficiary expenditures are projected to grow at 5.8 percent annually from 2010 to 2019, faster than growth in inflation or GDP per capita.

⁸⁵ Social Security Administration website.

⁸⁶ *Monthly Statistical Snapshot*, SSA website.

⁸⁷ Medicare Trustees Report 2010.

⁸⁸ *Social Security Basic Facts*, SSA website.

Medicare expenditures grew 129 percent from 2000 to 2009 while income grew slightly slower at 97 percent. Prior to passage of the Patient Protection and Affordable Care Act and Health Care and Education Reconciliation Act in 2010, Medicare's funding formula was projected to run out in 2017. A 2010 report from the Medicare Trustees Board projected insolvency would be delayed until 2029 under intermediate economic and demographic assumptions because the health care reform laws levy additional taxes on high income workers, high expense private health care plans, and theoretically slow the growth in Medicare expenditures.⁸⁹ The Social Security Board of Trustees projects Social Security's funding formula will be insufficient by 2037.⁹⁰

Two other federal retirement assistance programs are 401(k)s and Individual Retirement Accounts (IRAs). These popular accounts are similar to Singapore's CPF accounts in that they are individually managed, privately-invested, tax-incentivized with no risk sharing among the population. Unlike the CPF, they are voluntary. The federal government gives other tax incentives for investments, such as an income tax exemption on interest from municipal bonds and a lower tax rate on capital gains than income.⁹¹

Some professions have their own pension plans in place of Social Security. Federal, state, and local government employees, union members, and private sector employees often have their own defined benefit pensions. These pensions are usually “final average pay” (FAP) plans that calculate the benefits based on the years worked and pay during the highest earning years of the beneficiary's career. Most of these pension plans, along with Social Security and Medicare, have been running surpluses since their inception. The surpluses are deposited into trust funds composed of equity and bond

⁸⁹ Medicare Trustees Report 2010.

⁹⁰ Social Security Trustees Report 2010.

⁹¹ Michael G Meissner. *About Municipal Bonds*. And: *Federal Capital Gains Taxes 1988 – 2011*. The Tax Foundation.

investments with an objective of providing enough assets to cover future retirements. These investments shore up the United States' various pension plans, but most projections have them running into fiscal trouble in a couple decades.

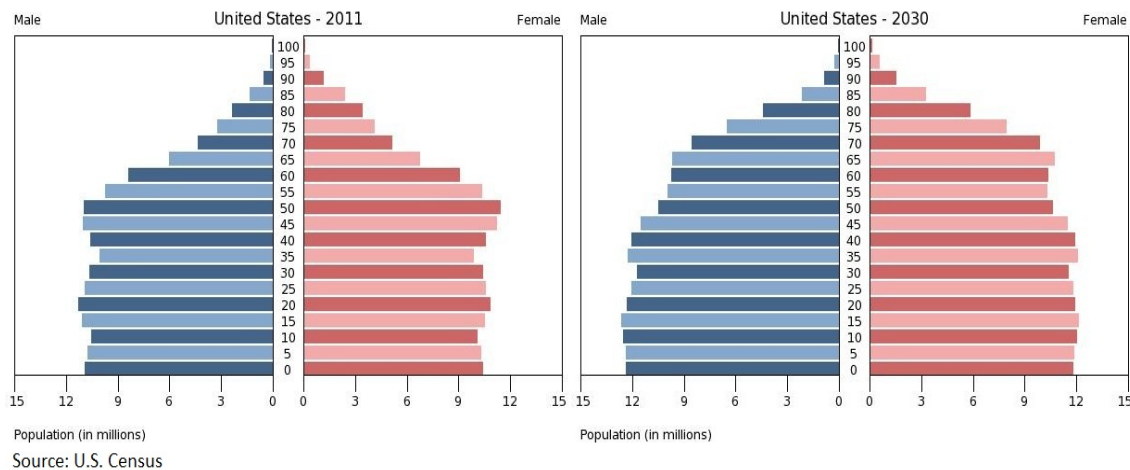


Table 4: Age structure of the United States: 2011 - 2030

Table 4 shows the United States has a relatively stable age structure with each generation being relatively the same size. This puts the U.S. in better shape than most advanced economies but not good enough to sustain its pension and health care system in their present forms.

3.3.3 Family policies

Arguably the first natal policies in the United States were pro-natalist policies by southern slave owners toward slaves. The federal government banned the importation of slaves after 1807, sharply increasing slaves' values as the southern economy expanded and demand for slaves grew. With this powerful economic incentive, slave owners tried a variety of incentives and coercive measures to encourage childbearing, including less

fieldwork, more food, rape, and beatings.⁹² But research on slavery in the American South and British West Indies argue that slave owners were not as successful as they wanted in encouraging slaves to have more children.⁹³ Women resisted with abortions, infanticide, prolonged breast-feeding which reduces fertility, and maternal watchfulness of their daughters.⁹⁴ Slave owners ignorantly overworked and underfed teen-aged women which also reduced fertility.⁹⁵

The end of slavery following the Civil War eliminated the profit motive for child-bearing and that era of natal policies, from 1808 to 1865, ended. The next wave of government interest in child-bearing came out of the mis-application of evolutionary theory and genetics to society, a movement known as eugenics in the first half of the 20th century. Eugenics advocated human-directed evolution, that society should actively promote reproduction among desirable people and prevent reproduction among undesirables, namely criminals, the poor, and disabled.⁹⁶ Eugenicists considered themselves progressives trying to move society forward using science. Malthus' assertion that the lower classes were reproducing faster than the upper classes fed their urgency. The primary policy tool of eugenics was forced or incentivized sterilization, enacted at the state level. The first was Indiana in 1907 and by 1925, twenty-five states had sterilization laws. Over 60,000 people were sterilized under eugenic policies from 1907

⁹² Deborah Gray White. *Ar'n't I a woman?* W.W. Norton: 1999. P. 98-104.

⁹³ Ibid. And: B. W. Higman. *Slave Populations of the British Caribbean: 1807-1834*. 1995. P. 348-354. And: Maris A Vinovskis. "Review: The Demography of the Slave Population in Antebellum America." 1975. P. 459-467.

⁹⁴ Higman, 348-354.

⁹⁵ White, 104.

⁹⁶ Michael G. Silver. *Eugenics and Compulsory Sterilization Laws*. George Washington Law Review 72.4 (2004).

to 1963.⁹⁷ It was not until the 1960s and 70s that state governments repealed their laws, influenced partially by the stigma of Nazi war crimes related to sterilization.⁹⁸

The post-eugenics era saw a retreat from government involvement in family planning. Sterilization had been discredited and new birth control methods, legalized abortion, and changing attitudes toward sex forced governments to be accommodating in their policies. Presidents Kennedy and Johnson made fighting poverty a top priority (the “War on Poverty”) and began aid to poor families, with aid scaling up with more children. Two programs to come out of that era were Medicaid and the Women, Infants, and Children program (WIC).

Medicaid provides health insurance to low income adults with disabilities or children, and their children. All children are covered so total benefits rise with the number of children a woman has. WIC provided specialized nutritional and counseling support to young mothers and their children under 5. Another significant program that dates back to 1935 was Aid to Families with Dependent Children (AFDC), modified in 1996 to Temporary Aid to Needy Families (TANF), which provide financial assistance to poor families. More children get more aid.

The tax code also helps parents. As of 2011 there is a \$1,000 per child tax credit that phases out for wealthier families.⁹⁹ The Earned Income Tax Credit (EITC) that began in 1975 provides refundable tax credits (essentially cash grants) that scale up with the number of children low and middle-income families have.¹⁰⁰ In 2011, poor families with no children can receive up to a paltry \$464 tax credit but with one child that jumps to \$3,094, and with two it can be \$5,112.¹⁰¹ None of these policies were implemented to

⁹⁷ Ibid.

⁹⁸ Ibid.

⁹⁹ *Ten Facts about the Child Tax Credit*. IRS.gov. Feb. 10, 2011.

¹⁰⁰ *Historical EITC Parameters*. Tax Policy Center. Jan. 20, 2011.

¹⁰¹ Ibid.

encourage more children, yet they are remarkably similar to pro-natalist policies in other countries.

Research on the fertility effects of these programs is mixed. One 1998 study concluded Medicaid eligibility expansions in 1987 and 1991 yielded a 5 percent increase in fertility among white women but had no change on black women, while the abortion rate remained unchanged.¹⁰² Another 2000 study said it caused a 10 percent increase in fertility among beneficiaries from 1983 to 1996.¹⁰³ A more recent study in 2010 says Medicaid's expansion had only a small positive effect on fertility in among white women who had not finished high school.¹⁰⁴

The EITC proved popular in the 1990s and benefits and eligibility were expanded several times, providing opportunities for researchers to study its effects on fertility. A 2003 study found the EITC led to large increases in the number of first births, and that the effects were most significant in non-white families.¹⁰⁵ The study found birth elasticity (the demand for children) to be highly inelastic so the overall increase in fertility rates was small. That same study found that high AFDC/TANF state benefits were correlated with higher first birthrates.¹⁰⁶

The United States does not have explicitly pro-natalist policies, but research by Joyce, et. al. (1998) and Baughman and Dickert-Conlin (2003) show its humanitarian policies for low-income parents lead to a small increase in fertility. Opponents of aid to low-income families often cite this unintended consequence. For pro-natalists in other

¹⁰² Theodore Joyce, et al. "Is Medicaid Pronatalist? The Effect of Eligibility Expansions on Abortions and Births" *Family Planning and Perspectives*, 1998.

¹⁰³ Marianne P. Bitler and Madeline Zavodny. "The Effect of Medicaid Eligibility Expansions on Births" *Federal Reserve Bank of Atlanta* working paper. March 2000.

¹⁰⁴ Madeline Zavodny and Marianne P. Bitler. "The Effect of Medicaid Eligibility Expansions on Fertility" *Social Science & Medicine*. 2010.

¹⁰⁵ Reagan Baughman and Stacy Dickert-Conlin. "Did Expanding the EITC Promote Motherhood?" *The American Economic Review* 93.2 (2003).

¹⁰⁶ Ibid.

countries, the American experience can be seen either as an example of the limitations of child incentives or as an example of policies that work.

3.3.4 Immigration policies

Immigration plays a central role in American history, culture, and policy. Founded by immigrants and their descendants, nearly the entire population of the modern day United States are descendants of immigrants or slaves who came to North America in the last four hundred years. American culture tends to be both proud of and burdened by this history, with periods of open immigration policies followed by reactionary periods when changing demographics became too unsettling.

United States immigration policy has been driven by several rationales throughout history. The word “immigration” was not used in the U.S until the 19th century; before that period new arrivals were called “settlers.” The colonies and states saw population growth through immigration as an economic, social, and security necessity. Larger towns could support more specialized economies, rally more manpower to retaliate against indigenous attacks, and offered more marriage prospects to its members. Colonies attracted immigrants with land incentives, a system known as “indentured servitude.” Immigrants unable to pay the cost of their voyage to the New World up-front could agree to be sold as workers to large landowners in the colonies and work for a period of several years until freed.¹⁰⁷ Upon being freed, the landowner would grant them a plot of land and supplies, or lump sum of money to start their own life. Slaves replaced indentured servants in the late 17th and 18th centuries as European immigration demand declined and slavery became more affordable.

¹⁰⁷ Mary S. Bilder, “The Struggle of Immigration: Indentured Servants, Slaves, and Articles of Commerce” *Missouri Law Review* 61, 4 (1996) 751-752. Accessed Jan. 30, 2011.

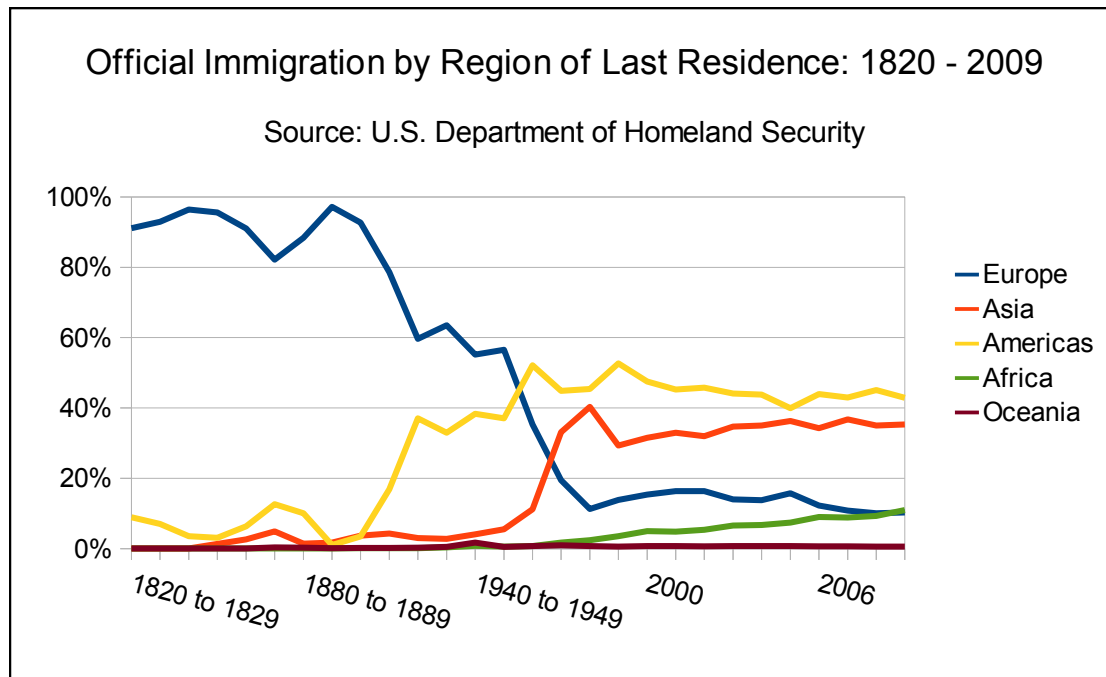


Figure 9: Source of official immigration to the United States: 1820 - 2009

Immigrants to the United States in the 19th century were overwhelmingly European with a significant Chinese population in the West in the second half of the century (see Figure 9). They came for different reasons: some fled “push” factors like religious persecution, economic destitution, or political turmoil in their homelands. Others came for the “pull” factors of cheap land and a belief that social and economic opportunity were ample in the U.S.¹⁰⁸ Immigration was regulated, however, and the peaks and troughs of immigration were as much as result of changing immigration policies as events in Europe. Immigration was largely welcomed to the British colonies that would form the first United States but with colony-specific restrictions on the poor, certain religions (notably Catholics who were often considered disloyal to England), and blacks.¹⁰⁹

¹⁰⁸ Bill O. Hing, *Defining American Through Immigration Policy*. 2004.

¹⁰⁹ Ibid.

The United States had extremely low population densities in the 18th and 19th centuries, and as it acquired more territory it felt compelled to settle the land in order to hold it. Using population to seize and hold land, “settling” it, was not new but the United States used it to a unprecedented scale. American governments in the 18th and 19th centuries consistently saw American territory as empty land needing settling. The American historian Frederick Jackson Turner wrote in 1893 that America's unique frontier experience helped develop American democratic institutions and a common identity across immigrant groups.¹¹⁰ There was policy feedback between immigration and territorial expansion. Surging immigration pressured government leaders to expand the country, and massive territorial expansions such as the Louisiana Purchase created a need for more immigrants to settle the land.

Federal policy in the 1800s encouraged settlement out of a threefold desire to hold land from other countries, to increase economic prosperity and self-sufficiency, and cultivate the ideal of the independent, hard-working “yeoman” farmer.¹¹¹ If federal lands were distributed according to market principles, as some leaders wanted because it would quickly raise the most revenue, it would be auctioned off to the highest bidder. But a series of federal policies culminating in the Homestead Act of 1862 increasingly favored squatters over the highest bidder. The Homestead Act allowed settlers to purchase up to 160 acres (0.65 km²) of federal land at a huge discount if they farmed and made it their home for five years. Settlers had to be self-sufficient in a remote area for over a year.

¹¹⁰ Frederick Jackson Turner, *The Frontier in American History* (New York: Dover Publications, 1996). Print.

¹¹¹ Trina W. Shanks, “The Homestead Act: A Major Asset-Building Policy in American History” in *Inclusion in the American Dream: Assets, Poverty, and Public Policy* ed. Michael Sherraden (Oxford UP, 2005) 20-40.

Between 1862 and 1934, 270 million acres (1.1 million km²) were distributed to 1.6 million families.¹¹²

United States immigration policy in the second half of the 19th century began to regulate specific nationalities in order to pacify nativist movements, especially during times of high unemployment. Chinese, Japanese, and Koreans were specifically targeted in the late 1800s, followed by Italians, Jews, and Eastern Europeans throughout the first decades of the 1900s.¹¹³ Nativist movements were born from economic fears of competing with immigrants for jobs, national security concerns, and “scientific racism” that fueled the eugenics movement described above. The Quota Law of 1921, followed by the Immigration Act of 1924, set national quotas on immigrants corresponding to the 1890 ethnic makeup of the United States.¹¹⁴ The idea was that that America must return to and maintain a specific ethnic mix. The Great Depression in the 1930s wiped out any desire to take immigrants. With small exceptions for refugees from Europe and Asia, immigration did not pick up during World War II either, with labor shortages in the southwestern United States filled by Mexican migrant workers. Racism and national security concerns merged when the government forced ethnic Japanese, but not Germans or Italians, into internment camps out of suspicion they would form a fifth column for Imperial Japan.

¹¹² “The Homestead Act of 1862” *U.S. National Archives*. Accessed January 29, 2011, <http://www.archives.gov/education/lessons/homestead-act/>

¹¹³ Hing, 29-70.

¹¹⁴ *Ibid.*, 68.

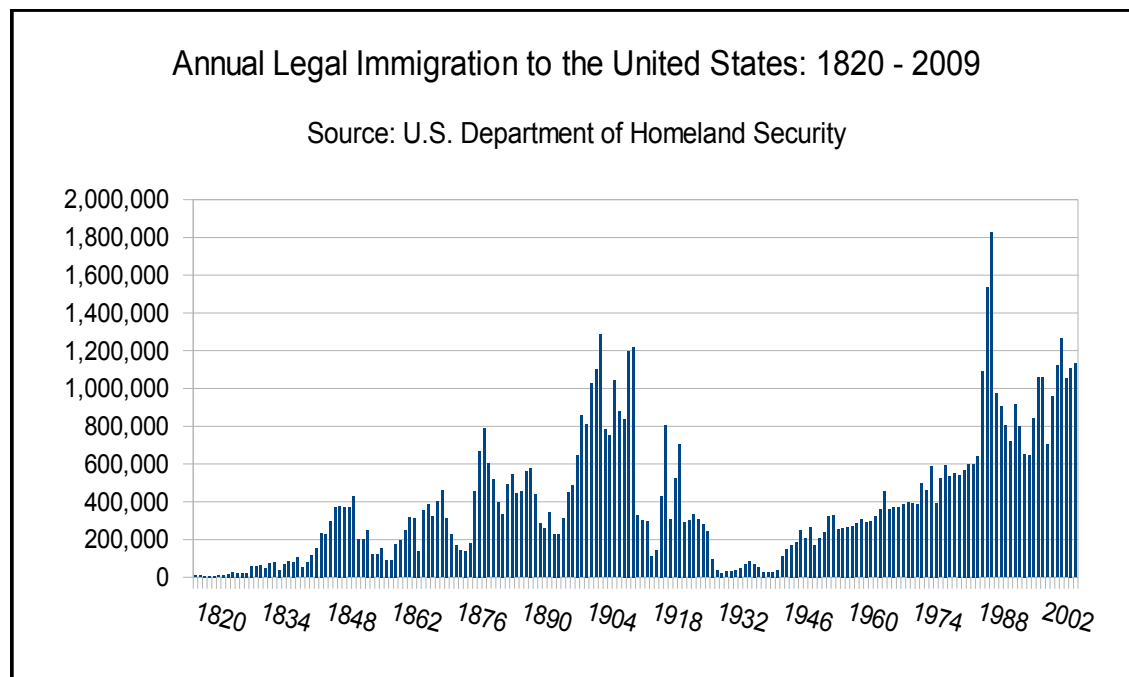


Figure 10: Official immigration to the United States: 1820 - 2009

The United States accepted far more immigrations with the end of World War II. Between 1941 and 1945, the U.S. accepted 171,000 immigrants (see Figure 10).¹¹⁵ From 1946 to 1950, 864,000 immigrants arrived.¹¹⁶ Reflecting rising Cold War paranoia, ethnic quotas gave way to restricting foreigners with “un-American” characteristics like being anarchist, communist, or homosexual.¹¹⁷ The period post-war period saw a tremendous spike in the number of immigrants forced to leave the country. From 1946 to 1954, exit orders rose 826 percent while immigration rose 91 percent.¹¹⁸

Later Cold War immigration policies were less sensitive to nativist movements and more reflective of American foreign policy that saw residents of Communist nations

¹¹⁵ “2009 Yearbook of Immigration Statistics”, *U.S. Department of Homeland Security*. <http://www.dhs.gov/files/statistics/publications/yearbook.shtm>, accessed January 20, 2011.

¹¹⁶ Ibid.

¹¹⁷ Hing, 74.

¹¹⁸ U.S. Department of Homeland Security.

as victims.¹¹⁹ Communist governments in China, Korea, Vietnam, and Cuba caused mass emigration to the United States. Refugees of American-supported dictatorships in Central and South America, on the other hand, were often denied political asylum because doing so would embarrass American foreign policy.¹²⁰ Immigration numbers in the second half of the 20th century were driven steadily upwards by family unification policies, demand for skilled immigrants, a strong American economy, and world events like the collapse of the Soviet Union in 1991.

Trouble close to home in the Caribbean, Mexico, and Central America from the 1960s onwards created the issue of illegal aliens. Previous immigration regimes had never had to deal with great numbers of illegal aliens because it was physically hard to reach the U.S. and ports of entry tightly controlled. Waves of immigrants crossing by boat, on foot, and in tractor trailers whipped up nativist furor, though it was somewhat blunted in the case of Cubans fleeing communism. In the early 1980s, the southwestern border with Mexico was largely unenforced, and it was normal for Mexican migrants to cross it several times a year to work and visit family.¹²¹ Nativist anger at the lack of border enforcement came to a head in 1986 when President Ronald Reagan signed the Immigration Control and Reform Act which punished employers of undocumented workers and increased enforcement.¹²² When illegal immigration continued unabated, Congress responded with 1990 Immigration Reform Act and 1996 Illegal Immigration Reform and Immigrant Responsibility Act.¹²³ Funding and manpower for the Border

119 Michael J. McBride, "Migrants and Asylum Seekers: Policy Responses in the United States to Immigrants and Refugees from Central America and the Caribbean" *International Migration* 37, 1 (1999): 292.

120 *Ibid.*, 296.

121 Rob T. Guerette and Ronald V. Clarke. "Border Enforcement, Organized Crime, and Deaths of Smuggled Migrants on the United States – Mexico Border" *European Journal on Criminal Policy and Research* 11, 2 (2005): 159-60. Accessed January 30, 2011, doi: 10.1007/s10609-005-6716-z

122 *Ibid.*, 161.

123 *Ibid.*

Patrol (BP) surged. From 1992 to 2000, the number of BP agents along the U.S.-Mexico border doubled, then doubled again from 2000 to 2008. The number of forced exits surged above their early Cold War paranoia numbers (see Figure 11).

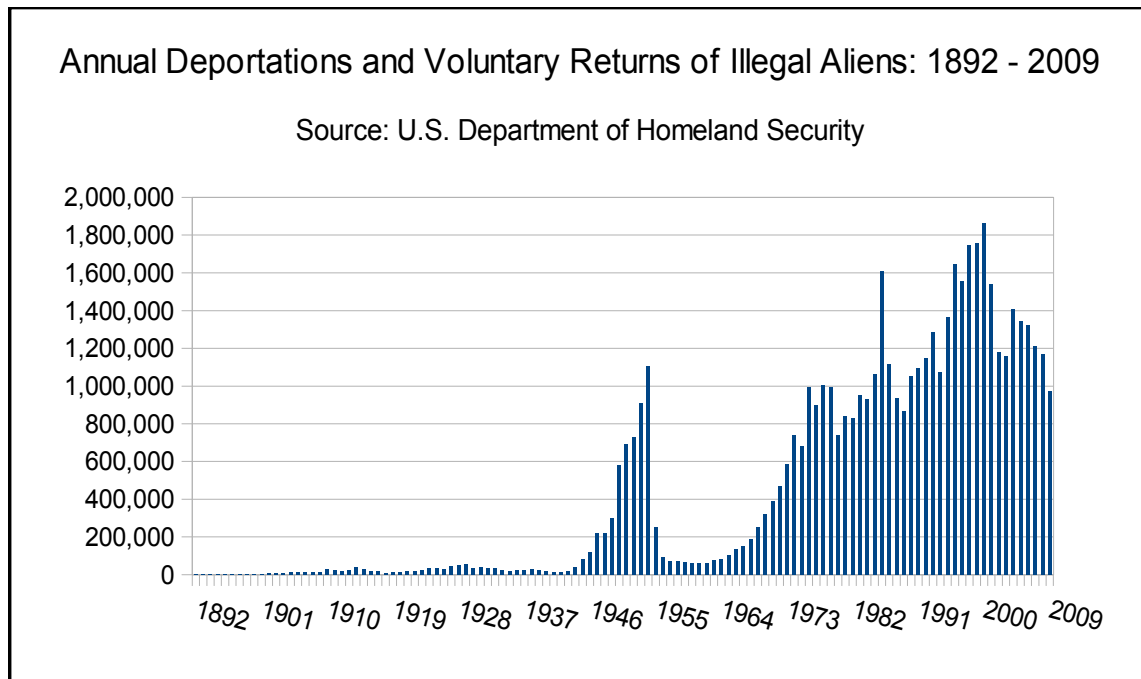


Figure 11: Expulsions of illegal aliens by the United States: 1892 - 2009

Domestic concerns reasserted themselves in immigration policy after September 11, 2001. National security became an obsession, and the fact that all nineteen hijackers were in the country legally focused scrutiny on visa policies rather than border enforcement.¹²⁴ But economic recessions from 2001 to 2003, and 2008 to 2011 reignited anti-illegal immigration sentiment. So far, the rhetoric has been directed solely at illegal immigration.

¹²⁴“The 9/11 Commission Report”, 2004. Web: www.9-11commission.gov/report/911Report.pdf , accessed Jan. 25, 2011.

3.3.5 Conclusion

The United States has an unusually high fertility rate for the developed world, though this was not always the case. At its lowest in the mid 1970s, the United States' fertility rate was as low as Western Europe's. Then while Western Europe, Japan, and Singapore kept declining, the U.S. rebounded to an incredible 2.1 in 2007. There is no consensus as to why this occurred, but common explanations include the large number of immigrants who have more children, birthright citizenship that accommodates even illegal immigrants' children, liberalized labor laws that made it easier for women to have children and work, cheaper credit to buy a home, stronger economy, and a religious revival.

Similar to Western Europe and Japan, the United States' old age support system is a pay-as-you-go system that taxes the working population to pay benefits to beneficiaries. This makes the programs demographically vulnerable, and even with a high fertility rate and open immigration policies, current forecasts have Social Security and Medicare in fiscal trouble by 2037 and 2029, respectively. This is sobering to other countries with lower fertility rates, more restrictive immigration policies, and more generous old age support systems.

The United States long promoted population growth to settle its expanding territory and develop an independent economy. Liberal immigration policies drove population growth although the numbers fluctuated based on political and economic events in Europe. The United States dabbled in anti-natalist eugenics policies targeted at “undesirable” elements of society, and though their cruelty was large, their effect on overall population was small. President Franklin Roosevelt's New Deal and President Lyndon B. Johnson's Great Society programs provided humanitarian aid to families that

scaled up with the number of children, inadvertently provided a small pro-natalist incentive.

What can other nations learn from the United States' population policies? First, more research is needed to understand why fertility rates recovered from 1.74 in 1976 to 2.1 in 2007. Is it really something unique in American culture, or are government policies affecting fertility? Second, there is strong evidence immigration is good for the economy and for improving fertility rates. Immigrants and their children tend to have larger families than “older” American families, though their fertility rates eventually regress to the mean with successive generations.

3.4 FRANCE

3.4.1 Background

France has had aggressive population growth policies for the last two centuries. Wracked by multiple destructive wars since the French Revolution in 1789, French governments have seen population growth as a matter of national survival. France has long had strong central governments and culture that supported the government as an agent of social change. They were one of the first governments to develop national population policies. Those policies have been characterized by a consistent pro-natalism supplemented with mass immigration after World Wars I and II. France's population took such a hit after those wars that rebuilding the country required an immediate labor infusion that newborn children obviously could not provide. Thus France accepted a large number of immigrants from overseas. The collapse of French colonial territories in the 1950s and 60s more or less forced another wave of immigrants onto France. Assimilation of these immigrants' descendants has been problematic.

The French pension system, *La Sécu*, is similar to the American Social Security and Medicare systems in that benefits are financed through taxes. This inter-generational transfer scheme makes it vulnerable to an aging population. Like Social Security, tax revenues earmarked for pensions that exceed benefits are invested in a government pension fund (*Fonds des Réserve pour les Retraites*, FRR) whose balance will be drawn down to cover deficits in later years. *La Sécu* is considered generous by European standards, with a comparatively low retirement age and good benefits. The French government has made some moves to reform it in recent years, but projections still show it in trouble in a couple decades.

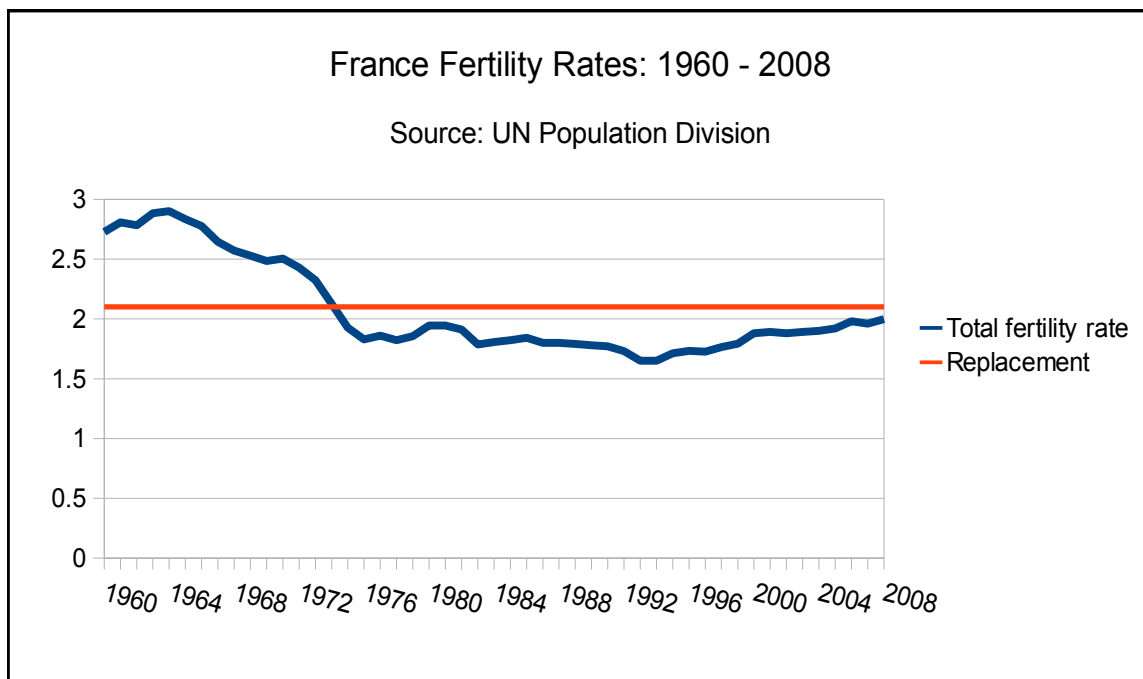


Figure 12: France fertility rates: 1960 - 2008

Figure 12 shows the rebound in fertility rates from aggressive pro-natalism and a rise in immigrants from high fertility countries.

3.4.2 Old age support system

France's social welfare system includes a defined benefits pension system for all French senior citizens and universal health coverage.¹²⁵ Minimum cash benefits come from the Guaranteed Minimum Old Age Income (*Minimum Vieillesse*), with additional benefits coming from government-administered, profession-specific, mandatory programs. *Régime Général* is the program covering private sector employees and *Régimes Spéciaux* covers government employees.¹²⁶ Citizens must work 40 years to qualify for a full pension, 41 starting in 2012.¹²⁷ This means someone who enters the workforce at age 25 must work until age 66 to receive a full pension. Pensions are calculated as a percentage of workers' 25-year salary average and benefit increases are tied to inflation.¹²⁸ Total pension benefits, not including health benefits, average 70 percent of contemporary salaries.¹²⁹

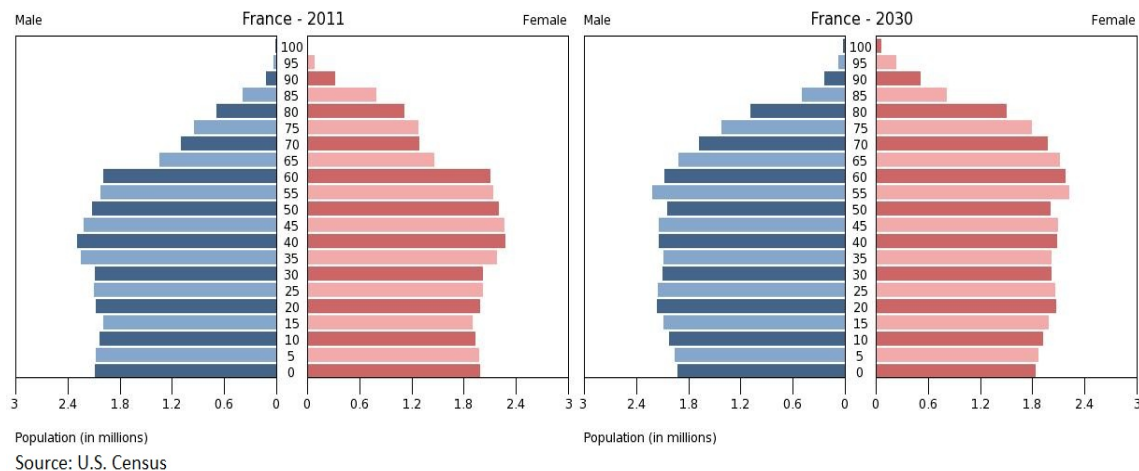


Table 5: Age structure of France: 2011 - 2030

¹²⁵ Laura Thompson, "Pension Reform, Political Pressure, and Public Choice: The Case of France" *Economic Affairs* 28, 4 (2008): 68. Accessed March 1, 2011, doi: 10.1111/j.1468-0270.2008.00874.x

¹²⁶ Ibid.

¹²⁷ "France." *Pension Funds Online*. Allianz Global Investors. Accessed March 1, 2011.

¹²⁸ Thompson, 69.

¹²⁹ Ibid.

Voluntary savings plans supplement the mandatory *Régimes*. Employer-provided savings plans with company matches and tax incentives resemble American 401(k) plans.¹³⁰ Employers can match employee contributions up to 10 percent of the beneficiary's salary tax free.¹³¹

The minimum retirement age was set at 60 from 1983 to 2010, when contentious reforms will phase it to 62 by 2018.¹³² The government estimates it needs two contributing years for every benefit year in order to stay solvent. This is a problem with high unemployment, an aging population, and increasing life expectancy. France's median age has grown from 31.5 in 1970 to 38.9 in 2010.¹³³ Life expectancy is projected to rise three years by 2020 and six years from 2040.¹³⁴ In 2011, 16.75 percent of the population is 65 and older (see Table 5).¹³⁵ By 2030, it is projected to be 22.9 percent. Pension benefits are projected to rise from 12 percent of GDP in 2000 to 16 percent in 2040.¹³⁶

Taxes to support the pension system are some of the highest in the world. Employees pay 25-26 percent of their income (10 percent by employers, 15 percent by employees).¹³⁷

The other half of the pension system is the National Health Insurance (NHI), a universal health care system covering all residents of France.¹³⁸ The system is a public-

¹³⁰ "France." *PensionFundsOnline*. Accessed March 1, 2011.

¹³¹ Ibid.

¹³² Katrin Bennhold, "France Moves to Raise Minimum Age of Retirement." *The New York Times*, September 15, 2010, accessed March 1, 2011.

¹³³ Insee website. *National Institute of Statistics and Economic Studies*. France.

¹³⁴ Thompson, 69.

¹³⁵ International Database, U.S. Census Bureau website, accessed March 1, 2011.

¹³⁶ Thompson, 69.

¹³⁷ Shinichi E. Oka, "Pension Reform in France" *The Japanese Journal of Social Security Policy* 3, 1 (2004). National Institute of Population and Social Security Research, June 2004. Web. Accessed 13 Mar. 2011. <<http://www.ipss.go.jp/webj-ad/webjournal.files/socialsecurity/2004/Jun/oka.pdf>>.

¹³⁸ Victor G. Rodwin, "The Health Care System Under French National Health Insurance: Lessons for Health Reform in the United States" *American Journal of Public Health*, 93, 1 (2003): 31. Accessed March

private hybrid based on fee-for-service government reimbursements of both public and private providers, with co-payments but no deductibles. Funding comes from payroll taxes of 19.7 percent, general revenue, and co-pays.¹³⁹ Ninety percent purchase additional optional coverage.¹⁴⁰ Rodwin (2003) describes NHI as more generous than Medicare (prior to the addition of Medicare Part D, prescription drug coverage).¹⁴¹ Despite universal coverage and medical service consumption higher than the United States, health care costs to government and consumer are lower.¹⁴² This is made possible by policies undertaken in the 1970s and 80s to limit medical inflation. The government negotiated with health care employee unions to keep their rate lows, restricted the number of medical students and new hospitals, and higher co-pays.

In spite of France's success in holding down medical inflation for the last thirty years, costs continued to out-pace economic growth, forcing NHI to increasingly raid the government's general revenue stream.¹⁴³ Low prices for medical services and prescription drugs helped increase their use. Physicians protests in the 1990s and 2000s against extraordinary low salaries compared to Western Europe and the United States brought an increase in reimbursements. In 2005, the French government reformed the health care system with more central control of health care funds, higher co-pays, higher income and

1, 2011.

139 Victor G. Rodwin and Simone Sandier, "Health Care under French National Health Insurance: public-private mix, low prices and high volumes" in *Universal Health Insurance in France: How Sustainable?* ed. Victor G. Rodwin. (Embassy of France, Washington, D.C., 2006) , 177.

<http://wagner.nyu.edu/health/universal.pdf>, accessed March 2, 2011.

140 Rodwin, 2003, 31.

141 Ibid., 32.

142 Rodwin and Sandier, 180-181.

143 Paul C. Sorum, "France Tries to Save its Ailing National Health Insurance System" in *Universal National Health Insurance in France: How Sustainable?* ed. Victor G. Rodwin (Embassy of France, Washington, D.C., 2006), 19, <http://wagner.nyu.edu/health/universal.pdf>. Accessed March 2, 2011.

excise taxes, and be more discerning over what drugs and services it would pay for based on evidence medicine.¹⁴⁴

The NHI's financial outlook remains cloudy, in spite of the contentious reforms of the 2000s. France's post-World War II Baby Boom generation began retiring in 2007, drawing on pension funds that had previously covered NHI deficits. An older population uses more medical services, and there will be fewer workers to support them. Universal health care is one of France's most treasured institutions and policy objectives are framed in terms of solidarity, liberalism, and pluralism.¹⁴⁵ Strong protests have met relatively small changes. More reforms will probably have to be implemented as health care costs continue to grow faster than revenue, and French citizens will be forced to weigh the alternatives of incentivizing more children and accepting more immigrants, not to mention general economic reforms to grow the economy.

3.4.3 Family policies

The modern French state was born from violent revolution and continental warfare. For the first time in European warfare, the revolutionary French government mobilized the entire nation for war through mass conscription, a practice known as *levée en masse*. Mass conscription drew a direct military benefit from a large population. Nationalist revolutions across Europe in the later 19th century adopted total war, making European wars of the 19th and 20th centuries the most destructive ever. Even when a country won a total war they suffered huge losses in population and economy. Concerns over inadequate birthrates and population have been a recurring theme in French politics. France's strong government, siege mentality that emerged from the French Revolution,

¹⁴⁴ Ibid., 22-24.

¹⁴⁵ Rodwin, 2006, 59-66.

and huge casualties in a string of wars for the last two centuries gave birth to some of the strongest and most effective pro-natalist policies in the developed world. They have succeeded to reversing their fertility rate decline since the 1980s to a level that is almost at replacement.

The first pro-natalist policies of Napoleonic France involved government assistance to poor mothers with children and returning women to traditional family roles that had them at home having children.¹⁴⁶ The French laity pressured the government to take a larger role in child welfare out of the humanitarian concern of reducing infanticide, and policy-makers reacted favorably with an eye on the additional population it would bring.¹⁴⁷ Napoleon funded private organizations that encouraged breast-feeding and took care of abandoned infants. He expanded the medieval tradition of *tours*, discreet cribs built into the walls of hospitals where unwanted babies could be dropped off as an alternative to infanticide. The government would then raise them. In 1806 he pledged the government would raise each family's sixth child (this was never implemented).¹⁴⁸ The *tours* gradually disappeared from public concern over the expenses they incurred during economic recessions of the 1814-1848 Bourbon Restoration. Thus the first pro-natalist policies were judged too expensive and the long-term economic and military benefit of children forgotten. The popularity of Thomas Malthus' anti-population growth thesis among contemporary economists and politicians suppressed any move to encourage more children.¹⁴⁹

Demographic concern surged in the aftermath of France's defeat to Prussia in the 1870 Franco-Prussian War.¹⁵⁰ Such was the scale of defeat, both in casualties and

¹⁴⁶ Burton, 176-177.

¹⁴⁷ Ibid.

¹⁴⁸ Tomlinson, 406.

¹⁴⁹ Ibid.

¹⁵⁰ Ibid.

national pride, that French intellectuals bemoaned the decline of French civilization of which a declining birth rate was one symptom. An 1867 report from the French Imperial Statistics Bureau had warned that a shrinking French population advantage over the German states was a national security threat.¹⁵¹ Late 19th and early 20th century France caught pro-natalist fever as intellectuals, politicians, and industrialists abandoned Malthus and revived Napoleon's ideas that the government should directly incentivize childbirth.

The pro-natalist movement formed private organizations to lobby the government. The proposed carrots included financial assistance to large families, subsidized public housing and transport to large families, and even giving an extra vote to fathers with at least three children (women could not yet vote).¹⁵² A stick of punitive taxes on the unmarried and childless couples was proposed to help finance these subsidies. The government incorporated the most influential of these organizations, the National Alliance for French Population Growth, into the government in 1913.¹⁵³

In spite of intense pro-natalist lobbying, political dysfunction delayed significant government action until 1913 when two laws gave financial incentives families with three or more children, with aid increasing with each child, and subsidized maternity care.¹⁵⁴ The laws' proximate cause was a warning from military planners that France was unable to match Germany's standing army size at current birth rates.¹⁵⁵ Levée en masse military theory demanded a large, young population.

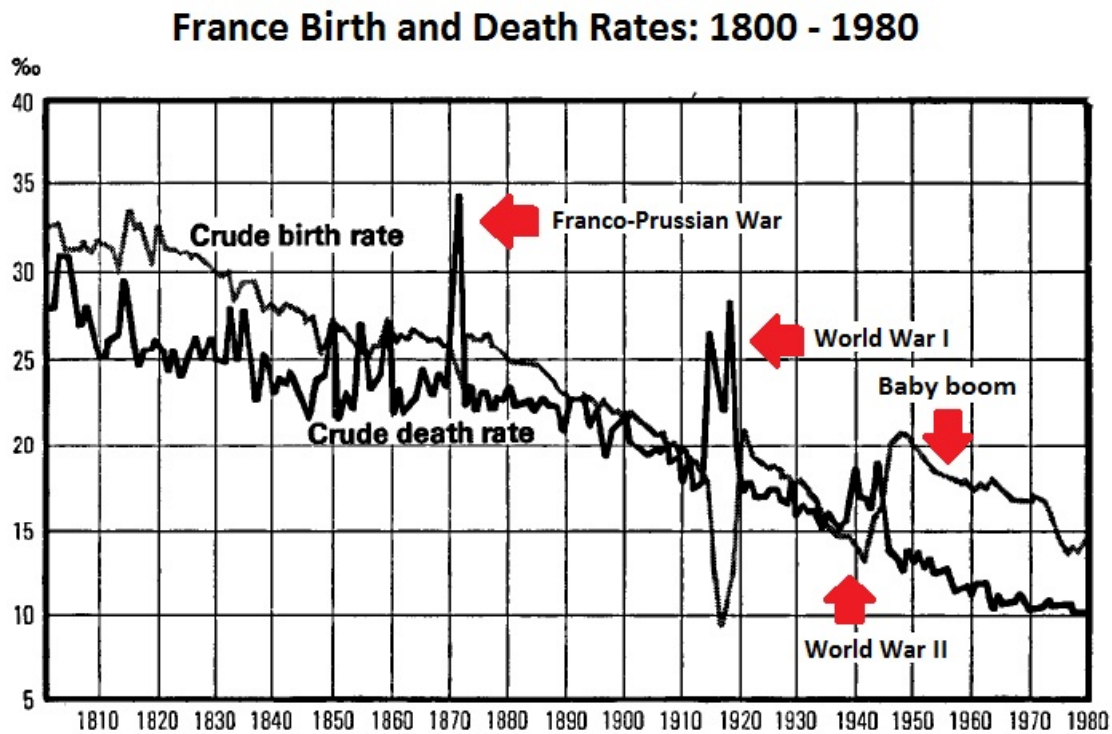
¹⁵¹ Ibid.

¹⁵² Ibid., 407.

¹⁵³ Ibid., 405.

¹⁵⁴ Ibid., 407.

¹⁵⁵ Ibid., 408.



Source: Philip E. Ogden and Marie-Monique Huss, "Demography and pronatalism in France in the nineteenth and twentieth centuries." *Journal of Historical Geography* 8, 3 (1982): 285.

Figure 13: France's demographic transition: 1800 - 1980

France suffered 1.7 million casualties in World War I, 17 percent of all who served, nearly an entire generation of young men (see Figure 13).¹⁵⁶ Between 27 and 30 percent of the standing French army in 1914 was killed.¹⁵⁷ So many men died that gender imbalance went from a normal half and half ratio to 45 men to 55 women.¹⁵⁸ French Prime Minister Georges Clemenceau argued after the Treaty of Versailles that raising the fertility rate was critical to French security: "For if France turns her back on large families, one can put all the clauses one wants in a treaty, one can take all the guns of

¹⁵⁶ John Keegan, *The First World War*. New York: A. Knopf, 1998. Print. P. 423.

¹⁵⁷ Ibid., 6.

¹⁵⁸ Ibid.

Germany, one can do whatever one likes, France will be lost because there will be no more Frenchmen.”¹⁵⁹

Such was the French loss of life and continued insecurity about living next to Germany that pro-natalists put their mission into overdrive. They demonized “neo-Malthusians” as undermining France and secretly cooperating with Germany.¹⁶⁰ In practice, their targets were often abortionists and birth control advocates. In 1920 the government criminalized abortion, contraceptives, and anyone advocating fewer children. The law's authors did not hide their intent to grow the population. (Romania under Nicolae Ceausescu in the 1960s restricted family planning with the same pro-natalist objective.)¹⁶¹ The government also increased the 1913 fertility incentives and planned to increase them further but for the German economic collapse in the mid-1920s which reduced war reparations to France. Lack of funding forced the government to return fertility incentives to 1913 levels, then nearly eliminated them in 1934. When the Great Depression hit France in 1932, tax revenue shrunk and anti-natalists finally got political traction saying families were already struggling to support the few children they have, why promote more?¹⁶² Thus France's second wave of pro-natalist incentives was again undone by fiscal problems.

Family planning restrictions remained in place, and when the Soviet Union banned abortion in 1935, France's Communists followed suit saying a large working class was necessary to achieve revolution.¹⁶³ The political class united behind population growth and against family planning, both to maximize “power”: for the nationalists it was

¹⁵⁹ Tomlinson, 409.

¹⁶⁰ Ibid., 410-411.

¹⁶¹ Gail Kligman, *The Politics of Duplicity: Controlling Reproduction in Ceausescu's Romania*. Berkeley: University of California, 1998. P. 10-11. Print.

¹⁶² Tomlinson, 411-412.

¹⁶³ Ibid., 414.

French national power and for the socialists it was the power of the proletariat. In 1939, France consolidated its pro-natalist policies into the Code de la Famille that not only incentivized children but attacked anything considered anti-family: abortion, birth control, pornography, and alcoholism.¹⁶⁴

World War II inflicted fewer casualties on France than World War I, about half a million military and civilian deaths, one third that of World War I.¹⁶⁵ France surrendered after their army was defeated in the field, and Germany did not target France for the kind of systematic destruction it did for Eastern Europe. The exception, of course, was the Jews. But physical damage was greater because the war often fought in urban areas unlike the rural nature of World War I. Rebuilding would be no small task, and once again a France felt it needed a lot more people than it had.

In 1945, President Charles de Gaulle called for “twelve million beautiful babies in ten years.”¹⁶⁶ He kept the pro-natalist policies of the Vichy government, created a Minister for Population Affairs, and created a national population committee.¹⁶⁷ The birth rate surged as peace unleashed the pent-up desire for starting a family and the pre-war Code de la Famille kept family planning to a minimum. One demographer attributed 10 percent of post-war births to government policies.¹⁶⁸ Western Europe and the United States also experienced a post-war baby boom. The surge in births reduced the urgency of the pro-natalist cause in the 1950s. The 1968 leftist revolution gave political and social voice to a younger generation less concerned about national power. Leftists re-

¹⁶⁴ Philip E. Ogden and Marie-Monique Huss, "Demography and Pronatalism in France in the Nineteenth and Twentieth Centuries." *Journal of Historical Geography* 8, 3 (1982): 293.

¹⁶⁵ Wayne C. McWilliams and Harry Piotrowski, *The World Since 1945: A History of International Relations*. Boulder, CO: Lynne Rienner, 1997. P. 12. Print.

¹⁶⁶ Tomlinson, 415.

¹⁶⁷ Ibid.

¹⁶⁸ Alison McIntosh, "Recent Pronatalist Policies in Western Europe." *Population and Development Review*, 12 (1986): 323.

embraced Malthus' population control ideas. Abortion was legalized in 1975. In 1982, economic recession torpedoed the government's plans for expanded benefits to parents.¹⁶⁹ But fear of population decline is France's *bête noire*, so when the birth rate dropped below replacement in the 1970s, the government expanded pro-natalist policies.¹⁷⁰ In 1976 it set a goal to raise TFR to replacement.¹⁷¹

Throughout the mid to late 1980s, France revamped and strengthened its pro-natalist policies. By 1993, families received cash benefits beginning in the fifth month of pregnancy and continuing until the baby was three months old.¹⁷² For poor families they payments keep coming until the child is age three. The Parenting Allowance is cash assistant for one parent to stay home if they have two or more children. Families also receive subsidized housing, child-care, and railroad travel. An overarching Family Allowance paid cash to all families with two or more children. Families with three or more children and single parents receive even more assistance, all on top of France's generous welfare system that covers health and education through college. France has set the world standard for pro-natalist incentives.

Unlike Singapore, France's policies seem to have raised the birthrate. Fertility rates bottomed out in 1993 to 1994 at 1.65 and grew to 1.99 in 2008.¹⁷³ French fertility rates were the third highest in Europe after Iceland and Ireland in 2008.¹⁷⁴ The developed world-wide trend of women delaying childbirth is born out in France where there has been a decreasing number of 20-29 year old women giving birth and an increase in 30-39 year old women giving birth. There has been a steady rise in births to bi-national couples

¹⁶⁹ Ibid., 321.

¹⁷⁰ Leslie King, "France Needs Children." *Sociological Quarterly* 39, 1 (1998): 41.

¹⁷¹ McIntosh, 319.

¹⁷² King, 37.

¹⁷³ UN Population Division, 2009.

¹⁷⁴ Ibid.

with 18.5 percent of 2006 births going to couples with at least one non-French parent, indicating immigration plays an increasing role in fertility.¹⁷⁵ In spite of France's positive demographic trends, it is still an aging population. Generous demographic projections still have 25 percent of the population over the age of 60 by 2019, up from 21.3 percent in 2007.¹⁷⁶ More immigration and pension and labor reforms will be needed.

3.4.4 Immigration policies

French immigration policy in the 20th century was driven primarily by short-term economic conditions and humanitarian concern. The humanitarian concern came from France's retreating colonial empire that left millions of French citizens and allies at risk, and family reunification. Like Singapore, France has historically complemented its pro-natalist policies with relatively liberal immigration policies.¹⁷⁷ The loss of young male life (the core of the workforce) from World War I was so great that France's economy needed an immediate demographic shot in the arm, not just higher fertility rates that would take a generation to start pay off. Between 1920 and 1935, France accepted 1.3 million foreign workers on top of a post-war population of around 39 million.¹⁷⁸ Immigration only slowed down in the mid-1930s as unemployment surged.¹⁷⁹

President de Gaulle repeated these policies after World War II, accepting immigrants from southern Europe and its overseas colonies.¹⁸⁰ Immigration shifted

¹⁷⁵ France Prioux and Jonathon Mandelbaum, "Recent Demographic Developments in France: Fertility at a More than 30-Year High." *Population (English Edition, 2002-)* 62, 3 (2007): 423.

¹⁷⁶ *Ibid.*, 418-419.

¹⁷⁷ James F. Hollifield, "Immigration Policy in France and Germany: Outputs versus Outcomes." *Annals of the American Academy of Political and Social Science* 485, 1 (1986): 113-28.

¹⁷⁸ Leah Haus, "Labor Unions and Immigration Policy in France." *International Migration Review* 33, 3 (1999): 691.

¹⁷⁹ *Ibid.*, 689-691.

¹⁸⁰ *Ibid.*, 698.

heavily to North Africa in the 1960s and 70s with political unrest and civil war creating refugees and France having fewer barriers to entry from its former colonies.¹⁸¹

The economy boomed until the mid-1970s. When a recession hiked unemployment, the government saw no further need for foreign labor and ended legal immigration in 1974. Like the United States' experience trying to close the U.S.-Mexico border in the 1980s, this move caused foreigners already in France to stay, knowing they would probably not be able to return to France if they left. Illegal immigration rose as foreigners came over on tourist or student visas then stayed. One year after the government closed legal immigration, they re-allowed family reunion immigration in 1975 because it was impracticable to enforce the restrictions.¹⁸² In 1981, a new leftist government granted amnesty to undocumented foreigners living in France and the number of legal immigrants doubled from 1981 to 1982.¹⁸³ But they failed to liberalize immigration policies as the economy worsened throughout the 1980s, and the number of immigrants returned to pre-1982 levels from 1983 to 1989.

France has accepted more immigrants since the 1990s, rising from 119,00 in 1994 to 211,000 in 2008.¹⁸⁴ The collapse of the Soviet Union created a boom in Eastern European immigrants, with another boomlet following the 2004 accession of eight Eastern European nations to the European Union (EU) (see Figure 14). African immigrants have formed a plurality of immigrants since 2000, and Asians continue to rise in numbers and share of total immigration.

¹⁸¹ Hollified, 119.

¹⁸² Ibid.

¹⁸³ Ibid., 699.

¹⁸⁴ France National Institute for Demographic Studies, accessed March 12, 2011.

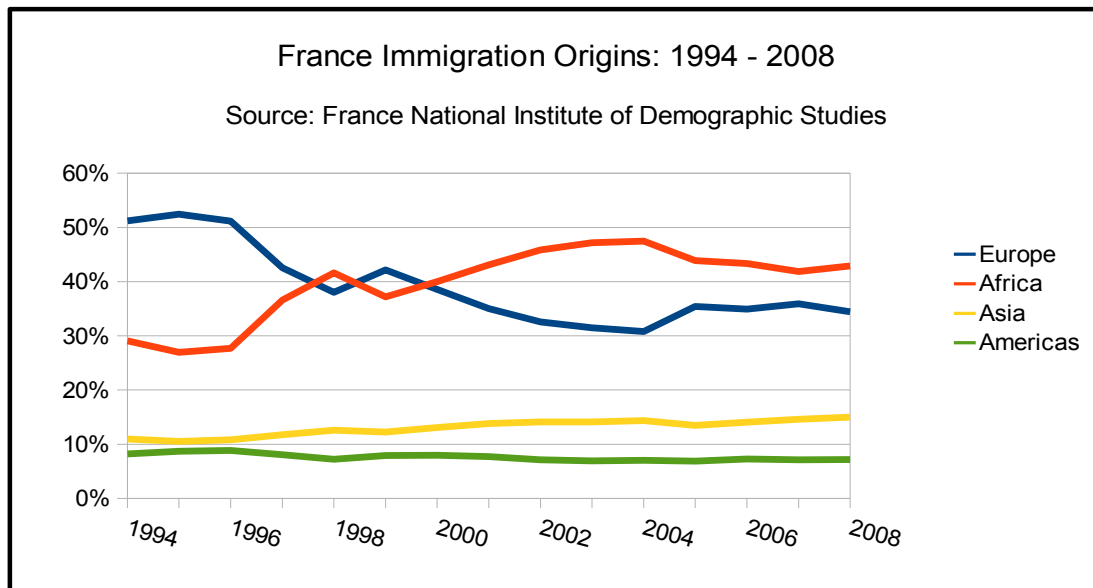


Figure 14: Source of immigration to France: 1994 - 2008

The domestic politics of immigration in France are complex. Assimilation is a national obsession and some scholars and policy-makers say a failure.¹⁸⁵ On one hand France does not have a national ethnicity or religion, and promotes equality of all citizens. Immigrants and low income residents receive generous welfare benefits. Thus in principle France is a welcoming place for immigrants. On the other hand, France expects citizens adopt French culture and has little tolerance for other customs. Immigrants and their descendants were cut out of French politics, discriminated against by employers and landlords, and omitted from official statistics that ignore ethnicity (and therefore ignore divergent economic and social conditions among immigrant groups).¹⁸⁶ The French belief in the superiority of their culture is not new. More than any other

¹⁸⁵ Yvonne Yazbeck Haddad and Michael J. Balz, "The October Riots in France: A Failed Immigration Policy or the Empire Strikes Back?" *International Migration* 44, 2 (2006): 23, accessed March 12, 2011, doi: 10.1111/j.1468-2435.2006.00362.x

¹⁸⁶ Alain Blum, "Resistance to Identity Categorization in France." Ed. David I. Kertzer and Dominique Arel. *Census and Identity: the Politics of Race, Ethnicity, and Language in National Census*. Cambridge, UK: Cambridge UP, 2002. 121-47.

European colonizer, nationalism drove France's colonial empire when it was known as *mission civilisatrice*.¹⁸⁷

Problems of assimilation arose not from first generation immigrants but their descendants who grew up confined to the margins of society.¹⁸⁸ Scholars realized there was a problem long before second and third generation immigrant youths rioted in Paris suburbs in October 2005.¹⁸⁹ French hip hop lyrics screamed the hopelessness of the *cités* (public housing projects) from the 1980s but the political class was not listening.¹⁹⁰ Since the 2005 riots, France has struggled develop constructive policies that do not undermine core values. Affirmative action is by definition in-egalitarian. Subsidies for mosques in order to co-opt them for the government would undermine secularism. The traditional French response to economic distress is more government assistance, but policy-makers wonder what more can they do when residents of the *cités* already live in public housing, receive national health care and education, and if they have families receive further subsidies. There has been progress in reforming the education system to be more meritocratic, allowing bright students of all neighborhoods to get into elite schools.¹⁹¹

France's experience with immigration is typical of Western nations in two ways. First is the unpredictability of immigration policy. What policy-makers intend to happen and what actually happens have been far apart since World War II. The general idea was to recruit foreigners judged most likely to assimilate—southern European Catholics—for immigration to boost the population, and others from the colonies to work for a period of time and then go home. What happened was the supply of southern European labor dried

¹⁸⁷ Haddad and Balz, 25.

¹⁸⁸ Ibid.

¹⁸⁹ Alec G. Hargreaves, *Immigration, 'Race' and Ethnicity in Contemporary France*. London: Routledge, 1995. P. 148.

¹⁹⁰ André J.M. Prévos, "The Evolution of French Rap Music and Hip Hop Culture in the 1980s and 1990s." *The French Review* 68, 5 (1996): 713-25.

¹⁹¹ Haddad and Balz, 28-29.

up as their own economies improved, while Africans stayed because they developed social ties to France and saw political upheaval in their home countries. France also did not expect so many refugees from their overseas colonies. Singapore and Japan have tighter controls on immigration and the activities of foreigners in their borders. They rigorously enforce the distinction between a temporary resident and immigrant, whereas in Western nations temporary residents have easier paths to permanent residency and citizenship.

Second are the thorny issues of assimilation in developed nations. In 2010, German Chancellor Angela Merkel said multi-culturalism had failed and immigrants needed to put more effort into assimilating.¹⁹² In 2011, British Prime Minister David Cameron¹⁹³ and French President Nicolas Sarkozy¹⁹⁴ said the same thing about immigrants in the UK and France, respectively. None proposed policy changes so as of 2011 there is only rhetoric. But anti-immigration and cultural nationalist politicians and parties have scored victories across Europe in the last decade. They are tapping into rising nativist feelings that come from insecurities over the economy, terrorism, and low non-immigrant birth rates.

3.4.5 Conclusion

More than any other country except perhaps Israel, France has concerned itself with demographics. It has done so for the same reason Israel promotes Jewish

¹⁹² "Merkel Says German Multicultural Society Has Failed." *BBC*. 17 Oct. 2010. Web. Accessed March 11, 2011.

¹⁹³ "State Multiculturalism Has Failed, Says David Cameron." *BBC*. 5 Feb. 2011. Web. Accessed March, 11 2011.

¹⁹⁴ "Multiculturalism Has Failed, Says French President." *AFP*. 10 Feb. 2010. Web. Accessed March 11, 2011.

immigration, an acute sense of vulnerability.¹⁹⁵ Revolutionary France was born at a time of war when the nation needed all the bodies it could muster to fight the allied monarchies of Europe. It pioneered a form of warfare that mobilized an entire nation, so the larger the population the better. Three immensely destructive wars in less than one century created the an economic need for workers as well. France's pro-natalist policies are the most comprehensive in the world, as well as the most expensive. Several times in history the government scaled back its incentives during economic recessions because they were unaffordable.

France's fiscal situation in the long-run is grim. Even with its relatively successful pro-natalist policies and net inflow of immigrants, the population will continue to age and the dependency ratio of retired elderly to working population will grow. This could lead to curtailing the financial aid to parents. Even if the pension system raise the retirement age and encourage seniors to keep working in old age, seniors draw more medical benefits. A steadily increasing population is essential to maintaining France's much-loved welfare system and quality of life. How much comes from natural growth vs. immigration, and how policy achieves these outcomes, will be a contentious issue in the future.

¹⁹⁵Gary S. Schiff. "The Politics of Fertility Policy in Israel", *Modern Jewish Fertility*. Leiden: Brill, 1981. 257.

3.5 JAPAN

3.5.1 Background

Japan appears to be a worst-case scenario in economic demography: low birthrate, high life expectancy for the elderly, generous pension benefits, and virtually no immigration or guest workers. To make matters worse, the economy has been moribund since 1991 and the government carries one of the highest ratios of national debt to GDP in the world, although Japanese debt is considered some of the safest in the world. Japan used to be a great economic power that commanded the respect and envy of much of the world including the United States. American companies studied the Japanese business model and predicted dates at which Japan would overtake the United States as the world's largest economy. It is hard to believe now that in the 1960s and 70s the government was concerned about overpopulation. Between 1945 and 1970 the population had risen 45 percent at an average annual rate of 1.5 percent.¹⁹⁶ Population growth accelerated in the late 1960s and peaked in 1972. From 1985 to 2009, the average annual population increase was 0.2 percent. Fertility rates peaking in 1971 at 2.16 then dropped dramatically until bottoming out at 1.26 in 2005 (see Figure 15).¹⁹⁷

¹⁹⁶ Japan Ministry of Internal Affairs and Communications, <http://www.stat.go.jp/english/data/jinsui/2.htm>, accessed March 13, 2011.

¹⁹⁷ UN Population Division.

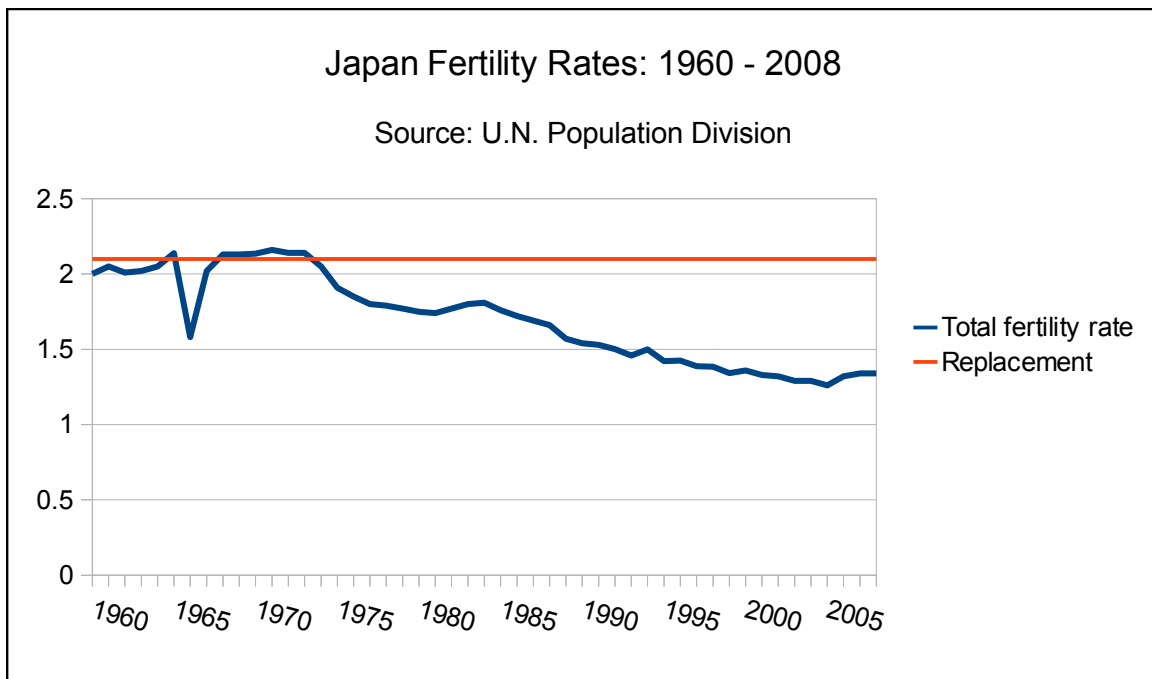


Figure 15: Japan fertility rates: 1960 - 2008

Low fertility rates are both a symptom and cause of the economic malaise Japan has been stuck in the last two decades. An aging and shrinking labor force feeds a pessimism of the future that weighs on couples' child-bearing decision. A shrinking number of young people reduces entrepreneurship and cements in place the staid, conservative political class that is keeping Japan sluggish. The elderly have more political power than the young so pension reform is likely to mean higher contributions rather than reduced benefits. The xenophobic culture resists immigration and large scale guest worker programs, but without labor reforms to create more opportunities for the young to enter and rise through the labor force foreign labor would not solve the problem.

3.5.2 Old age support system

Japan's social welfare programs include a semi-defined benefits pension system at age 65 (60 with reduced benefits) and universal health coverage. Three overlapping programs provide pension benefits: the National Pension (NP), Employees' Pension Insurance (EPI), and Mutual Aid Associations (MAA).¹⁹⁸ NP pays old age, disability, and survivors' pensions. Old age benefits are a function of how long they have paid in to the system, regardless of income.¹⁹⁹ Twenty five years is the minimum to receive any benefit and forty years qualifies for the maximum benefit, which in FY2009 was about \$717 a month.²⁰⁰ Benefit growth is tied to an index of consumer price inflation (CPI), real wage growth, and the change in disposable income as a proportion of total gross income.²⁰¹ In 2007, there were 2.77 contributors to each beneficiary, slightly fewer than the American Social Security system.²⁰²

Supplementing NP pensions are EPI or MAA. EPI covers private sector employees and the MAAs cover public sector and private school employees. Both are mandatory for the groups they cover and pay benefits indexed to a beneficiary's lifetime earnings. About fifty five percent of retirees receive both NP and EPI/MAA benefits, with the remaining population receiving only NP because they were self-employed, unemployed, farmers, or dependent spouses of employees.

As of 2009, a private sector employee contributes 14.996 percent of their income and will receive NP and EPI benefits. A public sector or private school employee contributes between 11.876 and 14.896 percent and receives NP and MAA benefits.

¹⁹⁸ Junichi Sakamoto, *Demographic Aging and Japan's Public Pension System*. Rep. no. 54. Nomura Research Institute, 10 Apr. 2009. Web, accessed March 13, 2011. P. 12.

¹⁹⁹ Ibid., 16.

²⁰⁰ ¥66,008 converted to US dollars using FY2009 exchange rate mid-year average of 92¥ = \$1 according to Oanda.com.

²⁰¹ Sakamoto, 16.

²⁰² Ibid., 13.

These rates will rise 0.354 percent annually until stabilizing at 18.3 percent in FY2017.²⁰³ Citizens who only qualify for NP paid about \$159 a month in FY2009, with a low-income exemption.²⁰⁴ They will have to pay an additional three dollars annually until stabilizing in FY2017. Like the American and French pensions, revenues exceeded benefits for most of their history and the balance was invested in pension funds. At the end of March 2007, the total pension fund balance was \$1.7 trillion.

Japan's pension system is a hybrid defined-benefits, defined-contributions setup because reforms in 2004 tied future benefit increases to a demographic and life expectancy index.²⁰⁵

Post-2004 Benefit Formula = (1 + normal index)

[(1 + (rate of decrease in pension schemes' contributors) + (rate of increase in life expectancy at age 65 (fixed at 0.03 percent)))]²⁰⁶

This is a hybrid system in which demography keeps benefits in check while maintaining a minimum level of benefits. Japan intends to transition to a system in which benefits are determined solely by available revenue, which will be fixed at 18.3 percent of workers' income in FY2017. This hybrid system makes pensions demographically safe but reduces pensioners' quality of life. Average benefits (NP + EPI/MAA) in 2009 were 59.2 percent of comparable employees' disposable incomes (a ratio known as replacement),

²⁰³ Ibid., 6.

²⁰⁴ Ibid., 23.

²⁰⁵ Ibid., 21.

²⁰⁶ Ibid.

and is projected to fall to 50.2 percent by 2023. This 50.2 percent replacement was projected to be sustainable in 2004.

No matter how sophisticated the benefit formulas, Japan's pension plans cannot escape the demographic reality that there is a falling number of workers supporting a growing number of beneficiaries. The 2004 reforms stated that if replacement fell below 50 percent the pension system would need further restructuring.²⁰⁷ In fact, the demographic projections on which the 2004 reforms were based have turned out overly optimistic by 2006, with replacement falling below 50 percent in FY2027. The share of population over 65 in 2011 is 22.9 percent, and by 2030 that is projected to rise to 30.2 percent (see Table 6). The dependency ratio will grow from 56.3 percent in 2011 to 69.2 percent in 2030. Further reforms, or a reversal in demographic and labor market fortunes, look increasingly necessary to maintain the system's solvency.

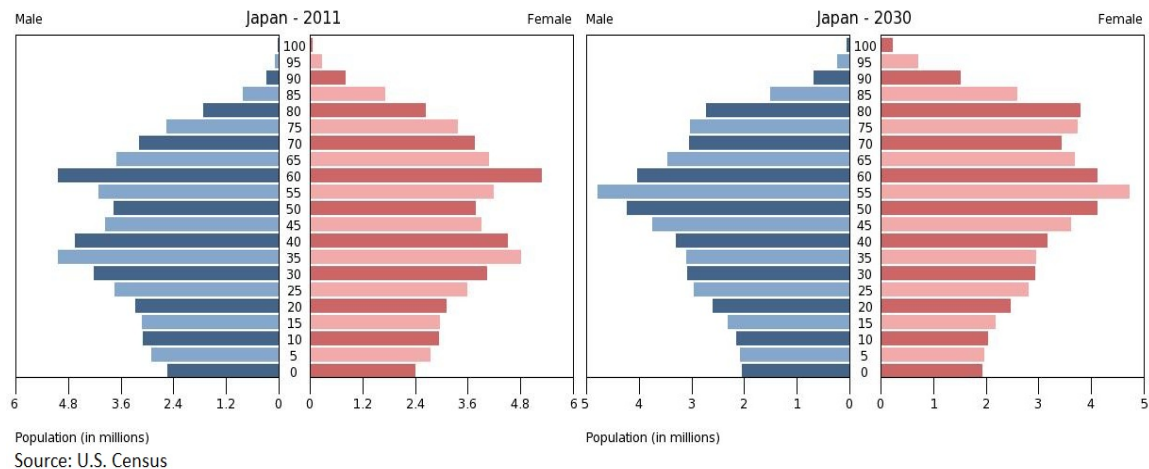


Table 6: Age structure of Japan: 2011 - 2030

Like most developed nations, the Japanese government provides universal health care. Employees usually receive health insurance through their employer in a system

²⁰⁷ Ibid., 8.

known as Employees' Health Insurance (EHI), and if they lose their job, work for themselves, or retire, they are required to purchase insurance from the government in a system called National Health Insurance (NHI).²⁰⁸ Japan's health care system resembles France's in its model of fee-for-service, high utilization, low costs to the patient. Like France, patients can see any doctor they want and do not need a referral in order for their health insurance to pay. Costs are kept low by government control on reimbursement fees. With its large market share, the government can set prices that providers have to take. Health outcomes are some of the best in the world with longest life expectancy over and at age 65 in the world.²⁰⁹

There are several problems with the Japanese health system going forward. First, its world-leading health outcomes can be partially attributed to an excellent diet heavy on fish, fewer car accidents from greater use of public transit, and compulsory health checks paid for by employers, not the health care system, that catch diseases early.²¹⁰ Mortality rates for specific diseases are sometimes higher than in other developed nations.²¹¹ There is large variation in the quality of care around the country. Moreover, the government has controlled costs almost entirely by cutting reimbursement fees and not by controlling supply and demand. As providers' fees have gone down, they have seen more patients and attempted more procedures, increasing health care utilization and keeping overall costs on the rise.²¹² Unlike France, there is little central management of the health care

208 Heang Chhor, Diana Farrell, Nicolaus Henke, and Sonosuke Kadonaga, "The Challenge of Reforming Japan's Health System", McKinsey & Company, Nov. 2008. Web, accessed March 15, 2011.

<www.mckinsey.com/mgi/reports/pdfs/reforming_Japan_health/Japan_Healthcare_Provision.pdf>. P. 8.

209 "Life Expectancy at 65: Live Long and Prosper", The Economist, 11 Dec. 2009. Web, accessed March 15, 2011. <http://www.economist.com/node/15098902?story_id=E1_TVDJRJDN>.

210 Chhor, et. al, 8.

211 Ibid., 21-22.

212 Ibid., 29-31.

system, and thus little they can do to reform the system other than adjusting reimbursement fees.

Japan's health care system may become a victim of its own success, having to scale back the quality of its care because of its success in extending the life of its population. Life expectancy for men and women in 1947 was 10.1 and 12.2 years, respectively.²¹³ By 2009 it had risen to 18.6 and 23.64 years. With more workers living to retirement age, more retirees living longer, and more medical procedures available to treat retirees, health expenditures on the elderly population will arguably grow faster than pension benefits. Unlike Japan's pension system, the health care system does not have a system in place for holding contributions (taxes and premiums) steady and making benefits a share of available revenues.

3.5.3 Family policies

Japan's population surged in the late 19th and early 20th centuries as death rates rapidly declined from industrialization during the Meiji Restoration (1868-1912). The population doubled from 1872 to 1937 when Imperial Japan invaded China.²¹⁴ The population growth came entirely from natural growth because Japan has historically been, and remains today, an insular, ethnically homogeneous society. The Meiji and Imperial leaders instituted a strict interpretation of neo-Confucianism that assigned roles to everyone in society.²¹⁵ Women were to be the consummate housewife, loyal and

²¹³ "Abridged Life Tables for Japan 2009." *Statistics and Information Department*. Ministry of Health, Labour and Welfare. Web, accessed 15 Mar. 2011. <<http://www.mhlw.go.jp/english/database/db-hw/lifetb09/index.html>>.

²¹⁴ "Population by Sex, Population Increase and Decrease, Population Density (1872-2009)", Japan Ministry of Internal Affairs and Communications, web, accessed March 15, 2011.

²¹⁵ Robert J. Smith, "Making Village Women into "Good Wives and Wise Mothers" in Prewar Japan", *Journal of Family History* 8.1 (1983): 75. Print.

deferential to her husband. To not bear a child within three years of marriage was a disgrace.²¹⁶ Like France, the Meiji leaders saw a large population a prerequisite to military strength.²¹⁷ They banned contraceptives.²¹⁸ The government view was known as *umeyo-fuyaseyo* (give birth and multiply).²¹⁹ Yet their fertility fell 26 percent from the early 1920s to the late 1930s.²²⁰ As the war in Asia and the Pacific expanded, Japan's military leaders called for more children.²²¹ Similar to fascist Germany, Imperial Japan believed their race to be superior and their nation divinely guided. More children were not just a military necessity, they fulfilled a divine mission.

Japan suffered huge population losses in World War II (which for Japan started in 1937). Casualties are estimated at 2.3 million, about 4 percent of the pre-war population of 70 million.²²² Whereas the population grew 12 percent in the nine years preceding the outbreak of war, it only grew 2 percent from 1937-1945.²²³ If the average pre-war annual population growth rate of 1.4 percent was maintained throughout the war, Japan would have had a 1945 population of 79 million instead of the actual 72 million. Thus it is apparent that the war not only killed 2.3 million Japanese, it prevented the births of another 6.7 million because of the uncertainty of the wartime economy and all the men deployed overseas/killed.

²¹⁶ Ibid.

²¹⁷ Hiroko Takeda, *The Political Economy of Reproduction in Japan: between Nation-state and Everyday Life*. London: RoutledgeCurzon, 2005. P. 3.

²¹⁸ Ibid.

²¹⁹ G. Vogt, "Talking Politics: Demographic Variables and Policy Measures in Japan," Ed. Florian Kohlbacher and Cornelius Herstatt. *The Silver Market Phenomenon Business Opportunities in an Era of Demographic Change*. Berlin: Springer, 2008. P. 21.

²²⁰ Philip M. Boffey, "Japan: A Crowded Nation Wants To Boost Its Birthrate" *Science* 167, 3920 (1970): 960. Print.

²²¹ John Lie, "The State as Pimp: Prostitution and the Patriarchal State in Japan in the 1940s" *The Sociological Quarterly* 38, 2 (1997): 254-55. Web: doi: 10.1111/j.1533-8525.1997.tb00476.x

²²² McWilliams and Piotrowski, 12.

²²³ "Population by Sex, Population Increase and Decrease, Population Density (1872-2009)", Japan Ministry of Internal Affairs and Communications, web, accessed March 15, 2011.

Like the rest of the war's participants, Japan experienced a post-war baby boom because men returning from overseas could finally start a family. Population growth averaged 2.9 percent from 1946-1950.²²⁴ But the baby boom ended sooner than other developed nations, partly because in 1948 the government made abortion, sterilization, and contraception easier to obtain to slow growth.²²⁵ The economic situation in post-war Japan was dire and society feared American occupation. Couples' natal enthusiasm was tempered by a pessimism of the future.²²⁶ Fertility dropped off rapidly, falling 50 percent from 1947 to 1957.²²⁷ Just as 1988 was an auspicious year for babies in Chinese culture, 1966 was an inauspicious year in Japanese culture, explaining the dramatic 26 percent decline in fertility from 1965 to 1966.²²⁸ Fertility peaked in 1971, one year after Prime Minister Eisaku Sato shocked the nation by calling for more higher fertility rates.²²⁹

The prevailing view in Japan and the developed world in the 1960s was that overcrowding and overpopulation was the source of many of the world's problems. Paul Ehrlich's 1968 The Population Bomb was the most public of scores of doomsday, overpopulation literature. Sato was reacting to a government council that warned Japan's pension system was unsustainable.²³⁰ This set off a debate over population growth at the same time Western academia was debating this issue. Those advocating slow growth pointed to overcrowding in Japanese cities while proponents pointed to alleged labor shortages and long-term sustainability of the pension system.²³¹ Ultimately the government did little to boost its birthrate until 1990.

²²⁴ Ibid.

²²⁵ Boffey, 167.

²²⁶ Ibid.

²²⁷ Ibid.

²²⁸ Robert D. Retherford, Naohiro Ogawa, and Satomi Sakamoto, "Values and Fertility Change in Japan", *Population Studies* 50, 1 (1996): 8. Print.

²²⁹ Boffey, 167.

²³⁰ Ibid.

²³¹ Ibid., 168.

In 1990, the government revealed that TFR had fallen to 1.57 in the previous year, down 5.4 percent from 1988.²³² This was the largest single year drop since 1974-75. What became known as “1.57shock” spurred the government to introduce the first overtly pro-natalist policies since World War II. In 1992 the government created the Child Care Leave Law to allow full-time employees to take up to one year of leave to care for a child under one year old.²³³ In 1995 they created the Angel Plan to help women work and raise a family at the same time. Child-care facilities were to be tripled by 1999, emergency child-care facilities raised by a factor of six, and after school clubs doubled.²³⁴

When this was not enough (TFR declined from 1.42 in 1995 to 1.32 in 1999),²³⁵ the government followed it with the “New Angel Plan” for 2000-2004 to increase the assistance given to working mothers and create a family-friendly workplace. Maternity leave was now compensated with 40 percent of salary, public employees got up to three years of child care leave, and the child tax credit was extended from age three to six, and working hours reduced.²³⁶ In 2001, the government created the “Zero Waiting for Day Care Program” that increased the number of child-care facilities.²³⁷ The child tax credit was extended from age six to completion of the third grade in 2003 (age 9).²³⁸ The “Children and Childrearing Support Plan” replaced the New Angel Plan for the 2005-2009 period and continued the focus on allowing family and career to coexist.²³⁹ It added a new focus on fathers by trying to curtail overtime hours and encourage men to contribute more to parents. This was a major cultural shift in the patriarchal culture that

²³² G. Vogt, 18; UN Population Division.

²³³ Yusuke Date and Satoshi Shimizutani, “Why Has Japan's Fertility Rate Declined?: An Empirical Literature Survey with an Emphasis on Policy Implications”, *Japanese Economy* 34, 1 (2007): 32.

²³⁴ Vogt, 19.

²³⁵ UN Population Division.

²³⁶ Date and Shimizutani, 32; Vogt, 19.

²³⁷ Vogt, 19.

²³⁸ Date and Shimizutani, 34.

²³⁹ Vogt, 20.

still saw men as the primary breadwinners and women as the primary parent. Direct financial assistance to parents is small compared to other developed nations like Singapore and France.²⁴⁰

From 1980 to 1992, fertility rates declined at an average annual rate of -1.24 percent. From 1993 to 2008, the average annual decline in fertility was -0.68 percent. If all things were equal, the pro-natalist policies could take credit halving the rate of the decline. A literature review of Japanese pro-natalist policy evaluation by Date and Shimizutani (2007) show that family leave systems probably increase fertility.²⁴¹ High child-care availability is correlated with more first children but not second children.²⁴² Because direct financial assistance to parents is not large in Japan, it has not been studied adequately.²⁴³ There have been no cost-benefit analysis that weighs the cost of the programs against any attributed increase in fertility.

3.5.4 Immigration policies

Low immigration and guest worker numbers distinguish Japan from other developed nations. As an ethnically homogeneous country for centuries, Japan has struggled to craft guest worker/immigration policies that sustain the economy without upsetting the citizenry. Whereas other developed nations have accepted immigrants to fill low-skill jobs, Japan has been reluctant to do even that. Many have come over temporary visas and worked illegally. A large number of Koreans and Chinese came over during the 1930s and 40s on account of Japan's empire, often as forced labor. Most returned home after World War II but about 680,000 Koreans and 130,000 Chinese

²⁴⁰ Date and Shimizutani, 32.

²⁴¹ Ibid., 30.

²⁴² Ibid., 31.

²⁴³ Ibid., 32.

stayed, forming the basis of Japan's first significant minority.²⁴⁴ They were granted citizenship in 1952.²⁴⁵ Between 1945 and 1980 there was little foreign in spite of the fact that Japan suffered a huge population loss and destruction from the war. This was made possible by rapid advancement in technology and a large rural population that was recruited into modern factories.²⁴⁶

Immigration attitudes and policies began to change in the mid-1980s. Japan's economy was expanding on a real estate bubble and hired up all domestic labor. Japan only allowed foreign workers with skills that could not be found in Japan.²⁴⁷ In 1985 the yen appreciated in value making Japanese salaries much higher than their Asian neighbors.²⁴⁸ China allowed more emigrants after 1985.²⁴⁹ These forces created strong demand for and supply of illegal un-skilled labor. By 1989, an estimated 100,000 foreigners were illegally working in Japan.²⁵⁰ By the late 1980s, the issue of illegal foreign labor made its way into the media and policy circles. In 1989 the government liberalized its foreign worker policy by allowing foreigners to "train on the job" (i.e. work) for up to two-thirds of their time in Japan.²⁵¹ It also streamlined visa procedures and made it easier for foreigners to get a residency permit. Significant penalties were added to employers of illegal foreign labor.

The 1990 reforms increased the number of unskilled foreigners in Japan by making it easier to enter the country and find an employer. In 1991 there were an

²⁴⁴ Keiko Yamanaka, "New Immigration Policy and Unskilled Foreign Workers in Japan", *Pacific Affairs* 66, 1 (1993): 74.

²⁴⁵ Hiromi Mori, *Immigration Policy and Foreign Workers in Japan*, New York, NY: St. Martin's, 1997. P. 2.

²⁴⁶ Yamanaka, 74.

²⁴⁷ Ibid., 75.

²⁴⁸ Ibid.

²⁴⁹ Ibid.

²⁵⁰ Ibid., 73.

²⁵¹ Ibid., 75-76.

estimated 500,000 such workers.²⁵² Arrests of illegal workers jumped from 8,000 in 1986 to 31,000 in 1991, and at which time there were any estimated 300,000 illegal workers.²⁵³ Japan differs from most developed nations by refusing permanent residency status to guest workers except those who are ethnically Japanese.²⁵⁴ There is no birthright citizenship for the children of foreigners.²⁵⁵ By refusing citizenship to all but ethnically Japanese, the government is tying Japanese identity to ethnicity.²⁵⁶

Like guest worker programs in Western Europe, Japan's temporary workers tend to stick around, forming a permanent under-class of residents.²⁵⁷ Foreign workers continued to come to Japan through the economic recession of the 1990s even as unemployment rose.²⁵⁸ Japan has made progress on improving the rights and living conditions of foreigners since the 1990s.²⁵⁹ Foreigners have become increasingly involved in Japanese civil society and public opinion polls show majorities are consistently open to granting them voting rights in local elections.²⁶⁰

3.5.5 Conclusion

While Japan appears at first glance to be a worse case scenario for the economic problems associated with aging, a closer examination shows Japan is not much different from other developed nations. There are two exceptions: the early decline in fertility and lack of immigration. Their fertility rates are on par with Singapore, South Korea, and

²⁵² Ibid., 77.

²⁵³ Ibid., 83.

²⁵⁴ Ibid., 78.

²⁵⁵ Erin Aeran Chung, *Immigration and Citizenship in Japan*. New York: Cambridge UP, 2010. P. 13.

²⁵⁶ Yamanaka, 84.

²⁵⁷ Usui, Chikako. *Local Citizenship in Recent Countries of Immigration: Japan in Comparative Perspective*. Ed. Takeyuki Tsuda. Oxford, UK: Lexington, 2006. P. 50.

²⁵⁸ Ibid., 47.

²⁵⁹ Ibid., 51.

²⁶⁰ Chung, 17-20.

southern Europe, life expectancy is only slightly higher than the developed world, and their pension and health systems are no more generous than Western Europe's. What makes Japan's situation especially grim is the early decline in fertility which fell below replacement in the 1950s. Sub-replacement TFR did not occur until 1972 in the United States, 1975 in France, and 1977 in Singapore. Moreover, the United States and France reversed their fertility declines whereas Japan's has continued downwards since the 1970s. And while Singapore, the United States, and France are officially OK with a multi-ethnic society, Japan is not.

Japan is making small progress in raising its fertility rate and big progress in integrating foreigners into society. But demographic projections are not getting any better so wholesale change in population policy may be necessary to maintain the high standard of living.

Chapter 4: Analysis and Recommendations

4.1 DETERMINANTS OF POPULATION POLICY

This report tackles three research questions: What historical and economic factors explain population policy? What is the demographic future of advanced economies? How can public policy affect demographic destiny? Comparing four developed nations show the diversity in approaches to population policy and inconsistent policy outcomes that underline the need to understand each country's political and economic context. Their histories offer lessons to developing nations who will one day grapple with the same challenges as developed nations.

To answer the first question, the spectrum of perceived threats best explains attitudes toward population growth. Tiny Singapore, surrounded by huge and unstable neighbors, saw economic development as key to national survival. In the 1950s and 60s, development was supposed to come from lower birth rates. But when birthrates sunk too low to jeopardize Singapore's long-term growth, the government reversed course in the 1980s. France in the mid-19th century embraced Malthus' ideas that population growth was bad, but humiliating defeat at the hands of Prussia in 1871 caused them to reverse course and advocate population growth. For Singapore, population policy was framed in an economic and social development context. For France, population policy was framed first by military and social considerations, then by economic concerns from the 1980s to the present day.

The United States promoted population growth when it was a young nation vulnerable to European powers. American leaders were preoccupied with the occupying frontier, ensuring territorial integrity, and reducing dependence on foreign trade. As the U.S. became increasingly self-confident and militarily powerful in the second half of the

19th century, they stopped promoting population growth *per se* but continued accepting large numbers of immigrants for economic and humanitarian reasons. Since the late 1800s the U.S. has not had a national population policy like other developed nations because it does not need one. The U.S. has a relatively high fertility rate and absorbs large numbers of immigrants annually.

Japan promoted population growth from the Meiji to the Imperial periods when its leaders felt great urgency in industrializing and strengthening the country. As Japan's empire expanded into Korea and China, then across Southeast Asia and the Western Pacific, its population strained. After World War II, the U.S. ensconced Japan in a protective alliance that allowed Japan to focus entirely on its domestic affairs. They no longer feared foreign invasion. Japan rode the demographic bubble until 1991 when it became clear their economic system would not survive the rate of aging.

Political scientists would not find this determinant of population policy surprising. A common understanding of policy-making is that when the public feels something is wrong, they turn to the government to “do something” even if that something is not directly related to the problem. Such was the case when France incorrectly blamed demographic decline for its defeat in the Franco-Prussian War. But demography poses a unique challenge to policy-makers, the “do something” cry may come too late. Japan should have begun pro-natalist policies in the 1960s to avoid the fiscal problems of aging seen today. Population policy is a long-term issue that needs long-term planning.

Another determinant of population policy is the tension between what an individual family wants and what the government wants. Ideally, young families and the governments' goals and abilities would be aligned so the government can step out of the picture. But this is not the case in developed nations because children are a positive

externality. The ones bearing most of the costs—parents—are not the ones reaping the long-term economic benefit—the rest of society. From parents' perspectives, the economic rationale for children has disappeared. From the government's perspective, which is to survey the whole economy, the economic rationale is as strong as ever. Effective population policy rests on policy-makers' ability to compensate parents for their children and demonstrate the benefits of a high fertility rate.

The demographic future of advanced economies rests on the politics of population policy. Battle lines will be drawn through old age support systems, family policy, and immigration policy. When policies are debated in the abstract, with consequences years away, politics tends to be along ideological lines. But when policy immediately affect people, interest groups will form from those affected. Sustaining old age support system will require either cutting or delaying benefits, raising taxes, or expanding the workforce. The generation with the most political muscle will bend policy to its will.

Given the underwhelming results of pro-natalist policies, all developed nations will have to accept large number of immigrants in order to maintain a young and growing population. The U.S. and France have some of the highest fertility rates among advanced economies yet will only hold their population stable without immigration. A stable population will still endure increasing old age dependency ratios that draw heavily on the public treasury.

It is not clear how generational differences will affect immigration policy. Young people tend to be more socially liberal and open to a multi-ethnic society than the elderly. Yet they also have more to lose in the short-run from competition for jobs, especially from skilled immigrants. A labor shortage brought on by an aging population helps the

working class initially by raising wages and increasing employment. But the probable tax hike to support the retired population would bite them back.

Developed nations' demographic future also hinges on the accepted role of the government in society. Singapore, France, and Japan have strong central governments with a history of social engineering. Their citizenries expect public policy to solve problems. The United States is a federal system with more popular skepticism of government than most developed nations. Germany's fascist history with population policy made the topic verboten until 1990.²⁶¹

4.2 RECOMMENDATIONS FOR FUTURE WORK

There has been insufficient research on the effectiveness of specific pro-natalist policies because most fertility research has focused on how to reduce fertility rates and achieve the “demographic dividend.” This will change as more governments try to raise fertility (see Table 1). The research conducted so far has been wildly inconsistent.

Research into pro-natalist policies must control for several factors including family background, education, economic status, and religiosity. A longitudinal study would match fertility data with policy data to see if policies are the cause. If the government increases cash grants for children and fertility rises but the number of people taking advantage of those benefits remains steady, perhaps out of ignorance of the benefits, then benefits are not the cause.

Another important and under-researched topic is a cost effectiveness of the policies. Do the benefits of children justify the extra cost? Are people taking advantage

²⁶¹ Ilona Ostner and Christoph Schmitt. "Family Policies in Germany", Ed. Ilona Ostner and Christoph Schmitt, *Family Policies in the Context of Family Change*, by Sigrid Leitner. Wiesbaden: VS, Verl. für Sozialwiss., 2008. P. 175-176.

of the benefits but having the same number of children they would have had without the incentives?

A cost-benefit equation would analyze the direct incentive costs, the indirect marginal costs (more spending on education, police, pensions, etc.), and the marginal loss in productivity that comes from parents taking time off work to take care of their children against the expected lifetime earnings of additional people. The costs per additional person are relatively uniform but the benefits are not. Even in a liberal democracy that values equal opportunity for all citizens, lifetime earnings are a function of both personal achievement and birth circumstances such as parental education. These lifetime earnings determinants could be modeled to find the most economically-beneficial policies. For example, incentivizing larger families for college graduates, as Singapore did in the 1980s, could theoretically get the most bang for the government's buck if college graduates' children are statistically more likely to be high-earners than children whose parents lack a degree, but it would run counter to egalitarian values. On the other hand, it is cheaper to encourage low-income families to have additional children than high-income families because the opportunity cost of children is lower. Balancing economic efficiency, public policy, and ethics is an essential part of the population policy discussion.

Economic concern has never been the only driver of pro-natalism. There is also the social and political impetus to have more of a nation's "own" children rather than accept immigrants. It is politically unfeasible in most countries to accept immigrants as a solution their demographic problems.

More research is needed on creating an age-friendly salary structure. Current systems that encourage company loyalty make senior workers more expensive than their

productivity, and thus the company tries to push them out. Section 4.6 will further discuss this issue.

4.3 ALL NATIONS SHOULD MAINTAIN GROWING POPULATIONS

A steadily increasing population is essential to maintaining low dependency ratios and a high quality of life. Even if there were no public expenditures on the elderly, an aging and shrinking population would lead to labor shortages and overburden younger family members who will be expected to take care of their older parents. Nearly all developed nations have assistance programs for the elderly that rely on taxes of the working age population. Contrary to popular perception, what one pays into those systems is not what they get out. They all rely on multiple workers per beneficiary to remain solvent, and adjust benefits according to beneficiary's earning history, inflation, and contemporary income.

An aging population will not immediately put pressure on a government's finances because people tend to increase their productivity throughout life. The exception is for people involved in manual labor for which aging decreases productivity. A 65 year-old lawyer will probably earn more than a 25 year-old lawyer, but a 65-year old construction worker will probably not match the productivity of a 25 year-old. The fiscal hit comes when a worker at the top of their earning potential retires. For example, an individual making \$100,000 a year and paying \$30,000 in taxes, who retires with \$40,000 in pension and health benefits, becomes a \$70,000 liability to the government with the expenditures and lost taxes. The economy loses that individual's \$100,000 of productivity, plus the deadweight loss in economic efficiency that comes from taxing others to pay for those old age benefits. The cumulative effect of millions of workers

retiring at the peak of their earning power and drawing a pension could cause severe fiscal problems.

A steadily growing population avoids the need to cut benefits or raise taxes because each generation of workers will be larger than the one it supports. If the increase comes from more children, that will pressure the working cohort but a large young population is far cheaper than a large old population. This assumes the rest of the economy is healthy and growing.

Aging is like a train in that it is easy to see where it is going, takes a while to get there, but once mass retirement hits corrections are hard to make. It is unfeasible to reduce benefits on those already retired or near retirement. Promoting more children as the number of retirees jumps would create a bulge of non-workers at each end of the population pyramid, squeezing the 20-64 age population who must support their parents and children. Pro-natalist policies must be implemented at least 18 years before the population bulge retires.

Middle-income nations like Brazil and China will probably encounter the same demographic problems unless they learn from the experiences of the developed world. Both are seeing a bulge in their labor forces from low fertility rates, coupled with strong economic growth. So did Europe and Japan in the 1950s-1980s. Japan was content to let the good times roll and ignore the demographic trends. Demographers sounded the alarm too late and most developed nations have struggled at great cost to raise fertility rates. China will probably reverse course from discouraging childbirth to aggressively promoting it within two decades, just like Singapore and Japan.

What about Malthus and Ehrlich's arguments about an over-crowded world? Even if one does not accept their warnings of imminent doom, it is hard to believe the

planet could accommodate a growing population indefinitely. But if there is anything the history of population has demonstrated it is that fears of overpopulation in the long-run are unfounded. Innovation and scientific discovery have enabled humanity to live longer, healthier lives in denser urban areas with greater abundance of consumer goods. Rather than being a Ponzi scheme in which collapse is inevitable, a relatively free economy adjusts well to population pressures. More demand leads to higher prices which incentivize innovation on the supply side and conservation on the demand side.

In 1000 A.D., the world population was estimated to be between 254 and 345 million people.²⁶² They probably had a hard time imagining a world twice as populace, let alone 25 times. Yet in 2011 at 6.7 billion people the world is more prosperous than it has ever been. Who is to say a world with 30 billion people would not be even better? That is a lot more brains collaborating on the world's problems, standing on the shoulders of today's giants. This report recommends all nations today, developed and under-developed, aspire for a growing young population for at least next fifty years.

4.4 INCREASING THE WORKFORCE: PRO-NATALIST POLICIES VS. GUEST WORKER PROGRAMS VS. IMMIGRATION

Governments looking to mitigate their demographic problems by growing their workforce have four options: increase the labor force participation rate, encourage their citizens to have more children, accept more temporary workers, and/or accept more permanent immigrants. The labor force participation rate is the share of any age cohort that works or is looking for work. It excludes students, homemakers, and the disabled. The dilemma is that the primary determinants of workforce participation among young

²⁶² "Historical Estimates of World Population", *U.S. Census Bureau*, web, accessed 23 Mar. 2011: <<http://www.census.gov/ipc/worldhis.html>>.

adults are education and fertility.²⁶³ Governments should not discourage those activities. Until labor laws can make having a family compatible with a career, there will be a trade off between labor force participation rate and fertility rate.

The most economically beneficial person is someone who is born at 22 with valuable skills then disappears as soon as they retire. Such a person does not exist except as a guest worker. The guest worker's home country shoulders education costs but the host country reaps the benefits of their skills. When they retire, they return to their home country to live on its pension system. It sounds too good to be true, and it is.

The downsides are one, guest workers remit a large portion of their income home, away from the host country's consumer economy. Two, guest workers in liberal democracies tend to stick around,²⁶⁴ which 3) negates some of the fiscal benefits and could cause social problems. When guest workers start families in the host country, it is nearly impossible to break up families. Moreover, long-term foreign residents challenge democratic ideals because they participate in society yet have no voice in policy. With guest workers, there is no consent of the governed other than the choice to be a guest worker, which after putting down roots and starting a career is not much of a choice. Therefore while guest worker programs may seem the ideal solution to aging, policy management is tricky to obtain the desired outcome.

The next best economically beneficial person is someone who is born at 22 with valuable skills and lives to enjoy retirement. Such a person is represented by the immigrant who becomes a citizen. The home country bears the burden of education from which the host country reaps the profit. Remittances are slightly less because the

²⁶³ David E. Bloom, et. al., "Fertility, Female Labor Force Participation, and the Demographic Dividend", *Journal of Economic Growth* 14, 2 (2009): 93-96. Web: doi: 10.1007/s10887-009-9039-9

²⁶⁴ Philip L. Martin and Michael S. Teitelbaum, "The Mirage of Mexican Guest Workers" *Foreign Affairs* 80, 6 (2001): 119.

immigrant is more likely to start a family in the host country. They benefit from all government services. France, however, requires 40 years of paying in to its pension system qualify for a full pension.

Once again reality is more complicated. The default view of all governments is that immigration is undesirable and should only be allowed for humanitarian reasons (including refugees and family reunification) or to fill labor shortages like farm workers or nurses. No country has open borders or is anything close to them. There is a political/social price to each immigrant that policy-makers weigh when making immigration policy. A nation's level of xenophobia plays a major part in pushing population policy in the pro-natalist or immigration direction. Even Singapore, where 25 percent of its population were foreigners in 2010, has strong pro-natalist policies because the government fears the loss of Singaporean culture.

4.5 MOST EFFECTIVE PRO-NATALIST POLICIES

There is no consensus on what are the most effective ways to incentivize child-bearing.²⁶⁵ Research on cash grants, extra government services, and family leave policies yield inconsistent results.²⁶⁶ Various policies have been shown by one study or another to have some effect, but there has been little comparison. Moreover, chapter 3 shows that policy comparisons across countries are hard because each country has a unique set of economic and cultural circumstances. Historically the most effective pro-natalist policy was to withhold family planning and abortion services. This was what France and Japan

²⁶⁵ Adriaan Kalwij, "The Impact of Family Policy Expenditure on Fertility in Western Europe" *Network for Studies on Pensions, Aging and Retirement* Discussion Paper 01/2009 - 07 (2009), web, accessed 24 Mar. 2011: <<http://arno.uvt.nl/show.cgi?fid=92913>>>

²⁶⁶ Ibid; Also: Anna C. d'Addio and Marco M. d'Ercole, "Trends and Determinants of Fertility in OECD Countries: The Role of Policies", *OECD Social, Employment and Migration Working Papers*, No. 27, OECD Publishing. Web: doi: 10.1787/880242325663

did during World War II, and how Romania under Communist leader Nicolae Ceaușescu achieved a dramatic rise in fertility in the late 1960s.²⁶⁷ But this kind of coercion is immoral and untenable in modern societies.

Nevertheless, research is coalescing around cash grants and a family-friendly labor market as effective. The higher women's participation in the workforce, the greater the opportunity cost to having a child, and the more effective family leave and flexible work hours will be. If a country has high direct costs to getting married and having children, namely buying a house, then cash grants will be more effective.

Immigration from high fertility countries is one of the surest ways to increase fertility. The United States and France have both benefited from this. But immigration is often unpopular. It goes against a common objectives of pro-natalism which is to sustain a specific culture, as is the case in Singapore and Japan.

4.6 REFORMS TO HELP OLD AGE SUPPORT SYSTEMS COPE WITH AGING

Short of maintaining a young and growing population, developed nations will have to reform their old age support systems (pension and health care) in order to avoid overburdening the working cohort. Singapore does this by having mandatory individual investment accounts with no risk-sharing. What a worker puts in is what they get for retirement, nothing more except for limited Eldercare stipends and a private sector pension if they have one. Singapore has gotten away with this because they expect the children to take care of their parents and grandparents, shifting the burden of old age support from the public sector. Western pensions exist to provide financial security to the elderly and thus redistribute money.

²⁶⁷ Michael S. Teitelbaum, "Fertility Effects of the Abolition of Legal Abortion in Romania." *Population Studies* 26, 3 (1972): 405-406.

France is expanding its version of the individual retirement account and the American IRA and 401(k) are increasingly popular to supplement traditional pensions. These can soften the blow of reduced pension benefits in the future. But in order to maintain the Western ideal of financial security for all seniors, some risk-sharing will be necessary. This is where Japan's pension reforms are useful. They are moving to a hybrid defined contribution pension system with risk-sharing. Contributions will be fixed at a flat payroll tax rate starting 2018 and benefits calculated based on available revenue. If revenue goes down, so do the benefits. Political action would not be required to cut benefits.²⁶⁸ The benefits are still allotted according to basic needs and lifetime earnings. Other developed nations can adopt this system and amend it so that if revenues fall, benefits to the wealthy are reduced first.

Returning to the individual retirement accounts, these typically rely on equities for their value. Economist Simon Kuznets predicted that an aging population will put downward pressure on equity prices as the retired gradually sell their assets to a smaller group of young buyers. This will decrease capital and harm the economy. A solution is to open up a country's financial markets to foreigners. This is not a problem in the developed world but much of the developing world still puts restrictions on foreign investment, especially real estate.²⁶⁹ Real estate is a common nest egg for retirement so allowing foreign ownership of land will keep prices high despite an aging population.

Index pension benefits to fertility. More children nets a beneficiary higher benefits and fewer children lower benefits. This would achieve three goals: incentivize children, tie the old age support system directly to the demography that supports it, and if higher fertility is not achieved, reduces old age benefits automatically. The idea that

²⁶⁸ Sakamoto, 5.

²⁶⁹ M. Sornarajah. *The International Law on Foreign Investment*, 3rd ed. Cambridge UP: Cambridge, 2010. P. 132.

citizens get back what they paid in is barely true for the current pay-as-you-go systems. A system in which fertility determines old age benefits would be more true to that idea because the beneficiary's children are paying taxes at the same time the beneficiary is receiving benefits. The beneficiary “paid in” by shouldering the costs of raising a large family. The downside is it may be viewed as punishing those who choose small families, are infertile, and would mean a less secure old age support system.

Raise the retirement age, but not too much. Residents of developed nations have benefited from greatly increased life expectancy but much of that comes from improved medical care that increases the chance one lives to 65. American life expectancy at birth increased 11 years between 1950 and 2006 while life expectancy at 65 increased 5 years.²⁷⁰ Japan's life expectancy at birth gained 20 (men) to 24 (women) years from 1950 to 2009 while life expectancy at 65 gained 7 to 12 years.²⁷¹ Pension systems exist to prevent the elderly from falling into poverty in old age after they are too old to work. This role used to be fulfilled by the retirees' children. The fiscal problem for pensions is not so much that people are living longer, but that more people are living to retirement with fewer supporting workers per beneficiary.

Singapore hides the fiscal challenges of aging by offloading most of the costs of elderly care on families. Supporters claim it promotes individual responsibility and is sustainable, unlike pay-as-you-go systems. This is misleading because Singapore's elderly depend heavily on their extended family for financial support. It is common for

270 Elizabeth Arias, "United States Life Tables, 2006" *National Vital Statistics Report* 58, 21 (2010). Web, accessed 23 Mar., 2011, <http://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58_21.pdf>.

271 "Abridged Life Tables for Japan 2008" Ministry of Health, Labour and Welfare. Web, accessed 23 Mar. 2011. <<http://www.mhlw.go.jp/za/0723/b09/b09.pdf>>. And: "Abridged Life Tables for Japan 2009." *Statistics and Information Department*. Ministry of Health, Labour and Welfare. Web. 15 Mar. 2011. <<http://www.mhlw.go.jp/english/database/db-hw/lifetb09/index.html>>. And: "2-36: Expectation of Life by Sex and Age." *Chapter 2 Population and Households*. Ministry of Health, Labour and Welfare. Web. 23 Mar. 2011. <<http://www.mhlw.go.jp/english/database/db-hw/lifetb09/1.html>>.

several generations to live under one roof. Thus Singaporean workers face similar but uneven burdens to support the elderly. In Western nations, they pay taxes to support pension systems. In Singapore, they take care of the elderly in their home. This model is politically unsustainable in light of Singapore's cultural and demographic trends. Youth increasingly want greater independence from their families. They are having smaller families. Both the young and the old will pressure the government to take a larger role in caring for the elderly. Some kind of re-distributive old age support system is likely in the future that has the same challenges as Western systems.

Create a tax-expenditure limitation (TEL) on old age benefits. Japan's 2004 reforms capped the pension contribution rate at 18 percent payroll tax in 2017 and will divvy up whatever revenue is collected to retirees according to the existing formula. Japan's system is not a pure TEL because benefit levels have to remain at a certain level which will probably create a revenue shortfall in the future. The advantage of a TEL is it would automatically cut benefits without contentious political debate. The disadvantages are it would make retirement planning more difficult because benefits are not guaranteed and each generation might feel cheated that they are getting less out of it than they paid in.

Index pension benefits to age, with benefits starting at a very low amount at retirement and increasing with age. This makes sense in the context of pensions' objective which is to prevent poverty and maintain a decent quality of life for the elderly. The newly retired are healthier and have more savings than they long-retired. It would save money by targeting benefits at a population that most needs them, reduce the number of beneficiaries receiving a full pension, and tax benefits.

Reform the labor market to make it easier for seniors to delay retirement, then keep working part-time after retirement. The United States does well in this area. Social Security and Medicare allows beneficiaries to work as much as they want and still receive full benefits after 65.²⁷² Transition to a knowledge-based economy will help. Productivity for workers in a manual labor position will decrease with age while certain tertiary industries that put a premium on experience can benefit from age.

One significant labor reform is to get away from seniority-based wage systems because it leads to overpaying older workers and making them less attractive to employers. Research shows productivity tends to peak at age 50, then decline, while wages continue to grow.²⁷³ This indicates older workers are overpaid. Employers do this to encourage younger workers to stick with the company and minimize the costs of recruitment and training.²⁷⁴ Older workers with seniority are less of a risk to quit. Companies underpay younger employees to account for that risk. Theoretically, a worker should receive adequate compensation for their productivity over their entire career, underpaid at the beginning and overpaid at the end. But this means companies often have mandatory retirement, an economic distortion and bad fiscal policy.²⁷⁵

Because both employers and employees have rational grounds for accepting this system, reform will be hard. One way is to ban mandatory retirement. Employers know this would allow older workers to continue to be overpaid for a long time and force employers to tie their wages to productivity. In turn, this would raise young worker wages as companies could no longer dangle the carrot of future seniority bonuses. It

272 "You Can Work and Get Social Security at the Same Time" *Social Security Administration*, 09 Feb. 2011. Web, accessed 23 Mar. 2011. <<http://www.ssa.gov/retire2/whileworking.htm>>.

273 Jan C. van Ours and Lenny Stoeldraijer, "Age, Wage, and Productivity" *Institute for the Study of Labor* Discussion Paper No. 4765 (2010). Web, accessed 23 Mar. 2011, <<http://ftp.iza.org/dp4765.pdf>>. P. 20.

274 Ibid., 2.

275 Edward P. Lazear, "Why Is There Mandatory Retirement?" *Journal of Political Economy* 87, 6 (1979): 1261.

would require a shift in attitudes among older workers and in many cases union rules. Companies will still try to incentivize loyalty to the company which makes more senior workers overpaid and thus a target for cost-cutting. More research should be done on how to encourage companies and workers to continue working into old age.

The politics of old age support systems will be increasingly polarized along generational lines. In order for them to remain solvent, governments will have to choose between cutting benefits and raising taxes on the younger working cohort. When these systems looked fine decades ago, younger workers were happy to vote higher benefits for the elderly knowing they would enjoy the benefits themselves one day. But as the younger generations increasingly fear they will not get what they paid in, there will be major political battles. Developing nations would be wise to heed the experiences of developed nations and adopt pro-growth population policies and/or sustainable old age support systems before the demographic “anti-dividend” hits.

Appendix

Appendix A: Total fertility rates for Singapore, the United States, France, and Japan: 1960 – 2008

Year	Singapore	United States	France	Japan	Year	Singapore	United States	France	Japan
1960	5.454	3.654	2.727	2.001	1985	1.614	1.844	1.823	1.76
1961	5.256	3.62	2.807	2.05	1986	1.433	1.8375	1.843	1.72
1962	5.2	3.461	2.783	2.01	1987	1.621	1.872	1.8	1.69
1963	5.007	3.319	2.883	2.02	1988	1.956	1.934	1.8	1.66
1964		3.19	2.901	2.05	1989	1.754	2.014	1.79	1.57
1965	4.698	2.913	2.834	2.139	1990	1.865	2.081	1.78	1.54
1966	4.498	2.721	2.776	1.58	1991	1.77	2.0625	1.77	1.53
1967	3.946	2.558	2.644	2.02	1992	1.76	2.046	1.73	1.502
1968	3.562	2.464	2.57	2.13	1993	1.778	2.0195	1.65	1.458
1969	3.246	2.456	2.529	2.13	1994	1.75	2.0015	1.65	1.5
1970	3.086	2.48	2.484	2.135	1995	1.71	1.978	1.713	1.422
1971	3.038	2.266	2.505	2.16	1996	1.696	1.976	1.733	1.425
1972	3.048	2.01	2.429	2.14	1997	1.635	1.971	1.726	1.388
1973	2.8	1.879	2.323	2.14	1998	1.494	1.999	1.764	1.384
1974	2.359	1.835	2.125	2.05	1999	1.475	2.0075	1.793	1.342
1975	2.079	1.774	1.927	1.909	2000	1.4425	2.056	1.88	1.359
1976	2.111	1.738	1.828	1.85	2001	1.41	2.034	1.89	1.33
1977	1.82	1.79	1.861	1.8	2002	1.37	2.013	1.88	1.32
1978	1.759	1.76	1.821	1.79	2003	1.27		1.89	1.29
1979	1.791	1.808	1.855	1.77	2004	1.26	2.045	1.9	1.29
1980	1.737	1.8395	1.945	1.75	2005	1.26	2.054	1.92	1.26
1981	1.723	1.812	1.945	1.74	2006	1.28	2.1	1.98	1.32
1982	1.706	1.8275	1.912	1.77	2007	1.29	2.1132	1.96	1.34
1983	1.608	1.799	1.787	1.8	2008	1.28	2.1	1.998	1.34
1984	1.615	1.8065	1.807	1.81					

Source: UN Population Division

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This report was typed by the author.